

tcaagtaaag gaagcacgaa gaagagggat gtcgttgaaa cccaagttgg ctactcctgg  
1620  
cttccccctcc tgaaagacgg aaggggtggtg acaagcgagc agcacatccc ggtctcggcg  
1680  
aaccttcctt cgggctatct tggctaccag gagcttggga tgggcaggca ttatggtcg  
1740  
gaaattaaat gggtagatgg aggcaagcca ctgctgaaaa tttccactca tctggtttct  
1800  
acagtgtata ctcaggatca gcatttacat aattttttcc agtactgtca gaaaaccgaa  
1860  
tctggagccc aagccttagg aaacgaactt gtaaagtacc ttaagagtct gcatgcatg  
1920  
gaaggccacg tgatgatcgc cttcttgccc actatcctaa accagctggt ccgagtcctc  
1980  
accagagcca cacaggaaga agtcgcgggtt aacgtgactc gggtcattat tcatgtggtt  
2040  
gcccagtgcc atgaggaagg attggagagc cacttgaggt catatgttaa gtacgcgtat  
2100  
aaggctgagc catatgttgc ctctgaatac aagacagtgc atgaagaact gaccaaattcc  
2160  
atgaccacga ttctcaagcc ttctgccgat ttctcacca gcaacaaact actgaagtac  
2220  
tcatggtttt tctttgatgt actgatcaaa tctatggctc agcatttgat agagaactcc  
2280  
aaagttaagt tgctgcgaaa ccagagattt cctgcatcct atcatcatgc agtggaacc  
2340  
gttgtaaata tgctgatgcc acacatcact cagaagtttc gagataatcc agaggcatct  
2400  
aagaacgcga atcatagcct tgctgtcttc atcaagagat gtttcacctt catggacagg  
2460  
ggctttgtct tcaagcagat caacaactac attagctggt ttgctcctgg agacccaaag  
2520  
accctctttg aatacaagtt tgaatttctc cgtgtagtgt gcaaccatga acattatatt  
2580  
ccgttgaact taccaatgcc atttgaaaaa ggcaggattc aaagatacca agacctccag  
2640  
cttgactact cattaacaga tgagttctgc agaaaccact tcttgggtggg actgttactg  
2700  
agggaggtgg ggacagccct ccaggagtgc cgggaggtcc gtctgatcgc catcagtgtg  
2760  
ctcaagaacc tgctgataaa gcattctttt gatgacagat atgcttcaag gagccatgag  
2820  
gcaaggatag ccacctcta cctgcctctg tttgggtctgc tgattgaaaa cgtccagcgg  
2880  
atcaatgtga gggatgtgtc acccttcctt gtgaacgcgg gcatgactgt gaaggatgaa  
2940  
tccttggtc taccagctgt gaatccgctg gtgacgccgc agaagggaag caccctggac  
3000  
aacagcctgc acaaggacct gctgggcgcc atctccggca ttgcttctcc atatacaacc  
3060  
tcaactccaa acatcaacag tgtgagaaat gctgattcga gaggatctct cataagcaca  
3120  
gattcgggta acagccttcc agaaaggaat agtgagaaga gcaattccct ggataagcac  
3180

caacaaagta gcacattggg aaattccgtg gttcgctgtg ataaacttga ccagtctgag  
3240  
attaagagcc tactgatgtg tttcctctac atcttaaaga gcatgtctga tgatgctttg  
3300  
tttacatatt ggaacaaggc ttcaacatct gaacttatgg atttttttac aatatctgaa  
3360  
gtctgcctgc accagttcca gtacatgggg aagcgataca tagccagaac aggaatgatg  
3420  
catgccagat tgcagcagct gggcagcctg gataactctc tcaacttttaa ccacagctat  
3480  
ggccactcgg acgcagatgt tctgcaccag tcattacttg aagccaacat tgctactgag  
3540  
gtttgcctga cagctctgga cacgctttct ctatttacat tggcgtttaa gaaccagctc  
3600  
ctggccgacc atggacataa tcctctcatg aaaaaagttt ttgatgtcta cctgtgtttt  
3660  
cttcaaaaac atcagtctga aacggcttta aaaaatgtct tcactgcctt aaggtcctta  
3720  
atttataagt ttccctcaac attctatgaa gggagagcgg acatgtgtgc ggctctgtgt  
3780  
tacgagattc tcaagtgtg taactccaag ctgagctcca tcaggacgga ggctcccag  
3840  
ctgctctact tcctgatgag gaacaacttt gattacactg gaaagaagtc ctttgtccgg  
3900  
acacatttgc aagtcatcat atctgtcagc cagctgatag cagacgttgt tggcattggg  
3960  
ggaaccagat tccagcagtc cctgtccatc atcaacaact gtgccaacag tgaccggctt  
4020  
attaagcaca ccagcttctc ctctgatgtg aaggacttaa ccaaaaggat acgcacggtg  
4080  
ctaattggcca ccgcccagat gaaggagcat gagaacgacc cagagatgct ggtggacctc  
4140  
cagtacagcc tggccaaatc ctatgccagc acgcccagac tcaggaagac gtggctcgac  
4200  
agcatggcca ggatccatgt caaaaatggc gatctctcag aggcagcaat gtgctatgtc  
4260  
cacgtaacag ccctagtggc agaatatctc acacggaaag aagcagtcca gtgggagccg  
4320  
ccccttctcc ccacagcca tagcgctgc ctgaggagga gccggggagg cgtgtttaga  
4380  
caaggatgca ccgccttcag ggtcattacc ccaaacatcg acgaggaggc ctccatgatg  
4440  
gaagacgtgg ggatgcagga tgtccatttc aacgaggatg tgctgatgga gtccttgag  
4500  
cagtgcgcag atggactctg gaaagccgag cgctacgagc tcattgccga catctacaaa  
4560  
cttatcatcc ccatttatga gaagcggagg gattttgaga ggctggccca tctgtatgac  
4620  
acgctgcacc gggcctacag caaagtgacc gaggtcatgc actcgggccg caggcttctg  
4680  
gggacctact tccgggtagc cttcttcggg caggcagcgc aataccagtt tacagacagt  
4740  
gaaacagatg tggagggatt ctttgaagat gaagatggaa aggagtatat ttacaaggaa  
4800



cccaaactca caccgctgtc ggaaatttct cagagactcc ttaaactgta ctcggataaa  
4860  
tttggttctg aaaatgtcaa aatgatacag gattctggca aggtcaaccc taaggatctg  
4920  
gattctaagt atgcctacat ccagggtgact cacgtcatcc ccttctttga cgaaaaagag  
4980  
ttgcaagaaa ggaaaacaga gtttgagaga tcccacaaca tccgccgctt catgtttgag  
5040  
atgccattta cgcagaccgg gaagaggcag ggcgggggtg aagagcagtg caaacggcgc  
5100  
accatcctga cagccataca ctgcttcctt tatgtgaaga agcgcacccc tgtcatgtac  
5160  
cagcaccaca ctgacctgaa ccccatcgag gtggccattg acgagatgag taagaagggtg  
5220  
gcggagctcc ggcagctgtg ctctcggcc gaggtggaca tgatcaaact gcagctcaaa  
5280  
ctccagggca gcgtgagtgt tcagggtcaat gctggccac tagcatatgc gcgagctttc  
5340  
ttagatgata caaacacaaa gcgatatcct gacaataaag tgaagctgct taaggaagtt  
5400  
ttcaggcaat ttgtggaagc ttgcgggtcaa gccttagcgg taaacgaacg tctgattaaa  
5460  
gaagaccagc tcgagtatca ggaagaaatg aaagccaact acagggaaat ggcgaaggag  
5520  
ctttctgaaa tcatgcatga gcagatctgc cccctggagg agaagacgag cgtcttaccg  
5580  
aattcccttc acatcttcaa cgccatcagt gggactccaa caagcacaat gggtcacggg  
5640  
atgaccagct cgtcttcggt cgtgtgatta catctcatgg cccgtgtgtg gggacttgct  
5700  
ttgtcatttg caaactcagg atgctttcca aagccaatca ctggggagac cgagcacagg  
5760  
gaggaccaag gggaagggga gagaaaggaa ataaagaaca acgttatttc ttaacagact  
5820  
ttctatagga gttgtaagaa ggtgcacata tttttttaaa tctcactggc aatattcaaa  
5880  
gttttcattg tgtcttaaca aagggtgtgt agacactctt gagctggact tagattttat  
5940  
tcttccttgc agagtagtgt tagaatagat ggcctacaga aaaaaaagg tctgggatct  
6000  
acatggcagg gagggctgca ctgacattga tgcctggggg accttttgcc tcgaggctga  
6060  
gctggaaaat cttgaaaata tttttttttt cctgtggcac attcaggttg aatacaagaa  
6120  
ctatttttgt gactagtttt tgatgaccta agggaaactga ccattgtaat tttgtacca  
6180  
gtgaaccagg agatttagtg cttttatatt catttccttg catttaagaa aatatgaaag  
6240  
cttaaggaat tatgtgagct taaaactagt caagcagttt agaaccaaag gcctatatta  
6300  
ataaccgcaa ctatgctgaa aagtacaaag tagtacagta tattgttatg tacatatcat  
6360  
tgttaataca gtccctggcat tctgtacata tatgtattac atttctacat ttttaatact  
6420

cacatgggct tatgcattaa gtttaattgt gataaatttg tgctgttcca gtatatgcaa  
 6480  
 tacacttttaa tgttttattc ttgtacataa aaatgtgcaa tatggagatg tatacagtct  
 6540  
 ttactatatt aggtttataa acagttttta gaatttcac cttttgccaa aatgggtggag  
 6600  
 tatgtaattg gtaaatacata aatcctgtgg tgaatgggtg tgtactttta agctgtcacc  
 6660  
 atgttatatt ttcttttaag acattaattt agtaatttta tatttgggaa aataaagggt  
 6720  
 ttttaatttta ttttaactgga atcactgccc tgctgtaatt aaacattctg taccacatct  
 6780  
 gtattaaaaa gacattgctg accattaaaa aaaaaa  
 6816

<210> 158  
 <211> 1572  
 <212> PRT  
 <213> Homo sapiens

<400> 158  
 Ala Ser Gly Asn Leu Asp Lys Asn Ala Arg Phe Ser Ala Ile Tyr Arg  
 1 5 10 15  
 Gln Asp Ser Asn Lys Leu Ser Asn Asp Asp Met Leu Lys Leu Leu Ala  
 20 25 30  
 Asp Phe Arg Lys Pro Glu Lys Met Ala Lys Leu Pro Val Ile Leu Gly  
 35 40 45  
 Asn Leu Asp Ile Thr Ile Asp Asn Val Ser Ser Asp Phe Pro Asn Tyr  
 50 55 60  
 Val Asn Ser Ser Tyr Ile Pro Thr Lys Gln Phe Glu Thr Cys Ser Lys  
 65 70 75 80  
 Thr Pro Ile Thr Phe Glu Val Glu Glu Phe Val Pro Cys Ile Pro Lys  
 85 90 95  
 His Thr Gln Pro Tyr Thr Ile Tyr Thr Asn His Leu Tyr Val Tyr Pro  
 100 105 110  
 Lys Tyr Leu Lys Tyr Asp Ser Gln Lys Ser Phe Ala Lys Ala Arg Asn  
 115 120 125  
 Ile Ala Ile Cys Ile Glu Phe Lys Asp Ser Asp Glu Glu Asp Ser Gln  
 130 135 140  
 Pro Leu Lys Cys Ile Tyr Gly Arg Pro Gly Gly Pro Val Phe Thr Arg  
 145 150 155 160  
 Ser Ala Phe Ala Ala Val Leu His His His Gln Asn Pro Glu Phe Tyr  
 165 170 175  
 Asp Glu Ile Lys Ile Glu Leu Pro Thr Gln Leu His Glu Lys His His  
 180 185 190  
 Leu Leu Leu Thr Phe Phe His Val Ser Cys Asp Asn Ser Ser Lys Gly  
 195 200 205  
 Ser Thr Lys Lys Arg Asp Val Val Glu Thr Gln Val Gly Tyr Ser Trp  
 210 215 220  
 Leu Pro Leu Leu Lys Asp Gly Arg Val Val Thr Ser Glu Gln His Ile  
 225 230 235 240  
 Pro Val Ser Ala Asn Leu Pro Ser Gly Tyr Leu Gly Tyr Gln Glu Leu  
 245 250 255  
 Gly Met Gly Arg His Tyr Gly Pro Glu Ile Lys Trp Val Asp Gly Gly

260 265 270  
 Lys Pro Leu Leu Lys Ile Ser Thr His Leu Val Ser Thr Val Tyr Thr  
 275 280 285  
 Gln Asp Gln His Leu His Asn Phe Phe Gln Tyr Cys Gln Lys Thr Glu  
 290 295 300  
 Ser Gly Ala Gln Ala Leu Gly Asn Glu Leu Val Lys Tyr Leu Lys Ser  
 305 310 315 320  
 Leu His Ala Met Glu Gly His Val Met Ile Ala Phe Leu Pro Thr Ile  
 325 330 335  
 Leu Asn Gln Leu Phe Arg Val Leu Thr Arg Ala Thr Gln Glu Glu Val  
 340 345 350  
 Ala Val Asn Val Thr Arg Val Ile Ile His Val Val Ala Gln Cys His  
 355 360 365  
 Glu Glu Gly Leu Glu Ser His Leu Arg Ser Tyr Val Lys Tyr Ala Tyr  
 370 375 380  
 Lys Ala Glu Pro Tyr Val Ala Ser Glu Tyr Lys Thr Val His Glu Glu  
 385 390 395 400  
 Leu Thr Lys Ser Met Thr Thr Ile Leu Lys Pro Ser Ala Asp Phe Leu  
 405 410 415  
 Thr Ser Asn Lys Leu Leu Lys Tyr Ser Trp Phe Phe Phe Asp Val Leu  
 420 425 430  
 Ile Lys Ser Met Ala Gln His Leu Ile Glu Asn Ser Lys Val Lys Leu  
 435 440 445  
 Leu Arg Asn Gln Arg Phe Pro Ala Ser Tyr His His Ala Val Glu Thr  
 450 455 460  
 Val Val Asn Met Leu Met Pro His Ile Thr Gln Lys Phe Arg Asp Asn  
 465 470 475 480  
 Pro Glu Ala Ser Lys Asn Ala Asn His Ser Leu Ala Val Phe Ile Lys  
 485 490 495  
 Arg Cys Phe Thr Phe Met Asp Arg Gly Phe Val Phe Lys Gln Ile Asn  
 500 505 510  
 Asn Tyr Ile Ser Cys Phe Ala Pro Gly Asp Pro Lys Thr Leu Phe Glu  
 515 520 525  
 Tyr Lys Phe Glu Phe Leu Arg Val Val Cys Asn His Glu His Tyr Ile  
 530 535 540  
 Pro Leu Asn Leu Pro Met Pro Phe Gly Lys Gly Arg Ile Gln Arg Tyr  
 545 550 555 560  
 Gln Asp Leu Gln Leu Asp Tyr Ser Leu Thr Asp Glu Phe Cys Arg Asn  
 565 570 575  
 His Phe Leu Val Gly Leu Leu Leu Arg Glu Val Gly Thr Ala Leu Gln  
 580 585 590  
 Glu Phe Arg Glu Val Arg Leu Ile Ala Ile Ser Val Leu Lys Asn Leu  
 595 600 605  
 Leu Ile Lys His Ser Phe Asp Asp Arg Tyr Ala Ser Arg Ser His Glu  
 610 615 620  
 Ala Arg Ile Ala Thr Leu Tyr Leu Pro Leu Phe Gly Leu Leu Ile Glu  
 625 630 635 640  
 Asn Val Gln Arg Ile Asn Val Arg Asp Val Ser Pro Phe Pro Val Asn  
 645 650 655  
 Ala Gly Met Thr Val Lys Asp Glu Ser Leu Ala Leu Pro Ala Val Asn  
 660 665 670  
 Pro Leu Val Thr Pro Gln Lys Gly Ser Thr Leu Asp Asn Ser Leu His  
 675 680 685  
 Lys Asp Leu Leu Gly Ala Ile Ser Gly Ile Ala Ser Pro Tyr Thr Thr

690	695	700
Ser Thr Pro Asn Ile Asn Ser Val Arg Asn Ala Asp Ser Arg Gly Ser		
705	710	715
Leu Ile Ser Thr Asp Ser Gly Asn Ser Leu Pro Glu Arg Asn Ser Glu		720
	725	730
Lys Ser Asn Ser Leu Asp Lys His Gln Gln Ser Ser Thr Leu Gly Asn		735
	740	745
Ser Val Val Arg Cys Asp Lys Leu Asp Gln Ser Glu Ile Lys Ser Leu		750
	755	760
Leu Met Cys Phe Leu Tyr Ile Leu Lys Ser Met Ser Asp Asp Ala Leu		765
	770	775
Phe Thr Tyr Trp Asn Lys Ala Ser Thr Ser Glu Leu Met Asp Phe Phe		780
785	790	795
Thr Ile Ser Glu Val Cys Leu His Gln Phe Gln Tyr Met Gly Lys Arg		800
	805	810
Tyr Ile Ala Arg Thr Gly Met Met His Ala Arg Leu Gln Gln Leu Gly		815
	820	825
Ser Leu Asp Asn Ser Leu Thr Phe Asn His Ser Tyr Gly His Ser Asp		830
	835	840
Ala Asp Val Leu His Gln Ser Leu Leu Glu Ala Asn Ile Ala Thr Glu		845
	850	855
Val Cys Leu Thr Ala Leu Asp Thr Leu Ser Leu Phe Thr Leu Ala Phe		860
865	870	875
Lys Asn Gln Leu Leu Ala Asp His Gly His Asn Pro Leu Met Lys Lys		880
	885	890
Val Phe Asp Val Tyr Leu Cys Phe Leu Gln Lys His Gln Ser Glu Thr		895
	900	905
Ala Leu Lys Asn Val Phe Thr Ala Leu Arg Ser Leu Ile Tyr Lys Phe		910
	915	920
Pro Ser Thr Phe Tyr Glu Gly Arg Ala Asp Met Cys Ala Ala Leu Cys		925
	930	935
Tyr Glu Ile Leu Lys Cys Cys Asn Ser Lys Leu Ser Ser Ile Arg Thr		940
945	950	955
Glu Ala Ser Gln Leu Leu Tyr Phe Leu Met Arg Asn Asn Phe Asp Tyr		960
	965	970
Thr Gly Lys Lys Ser Phe Val Arg Thr His Leu Gln Val Ile Ile Ser		975
	980	985
Val Ser Gln Leu Ile Ala Asp Val Val Gly Ile Gly Gly Thr Arg Phe		990
	995	1000
Gln Gln Ser Leu Ser Ile Ile Asn Asn Cys Ala Asn Ser Asp Arg Leu		1005
	1010	1015
Ile Lys His Thr Ser Phe Ser Ser Asp Val Lys Asp Leu Thr Lys Arg		1020
1025	1030	1035
Ile Arg Thr Val Leu Met Ala Thr Ala Gln Met Lys Glu His Glu Asn		1040
	1045	1050
Asp Pro Glu Met Leu Val Asp Leu Gln Tyr Ser Leu Ala Lys Ser Tyr		1055
	1060	1065
Ala Ser Thr Pro Glu Leu Arg Lys Thr Trp Leu Asp Ser Met Ala Arg		1070
	1075	1080
Ile His Val Lys Asn Gly Asp Leu Ser Glu Ala Ala Met Cys Tyr Val		1085
	1090	1095
His Val Thr Ala Leu Val Ala Glu Tyr Leu Thr Arg Lys Glu Ala Val		1100
1105	1110	1115
Gln Trp Glu Pro Pro Leu Leu Pro His Ser His Ser Ala Cys Leu Arg		1120

				1125				1130					1135		
Arg	Ser	Arg	Gly	Gly	Val	Phe	Arg	Gln	Gly	Cys	Thr	Ala	Phe	Arg	Val
			1140					1145					1150		
Ile	Thr	Pro	Asn	Ile	Asp	Glu	Glu	Ala	Ser	Met	Met	Glu	Asp	Val	Gly
		1155					1160					1165			
Met	Gln	Asp	Val	His	Phe	Asn	Glu	Asp	Val	Leu	Met	Glu	Leu	Leu	Glu
	1170					1175				1180					
Gln	Cys	Ala	Asp	Gly	Leu	Trp	Lys	Ala	Glu	Arg	Tyr	Glu	Leu	Ile	Ala
1185				1190					1195					1200	
Asp	Ile	Tyr	Lys	Leu	Ile	Ile	Pro	Ile	Tyr	Glu	Lys	Arg	Arg	Asp	Phe
			1205					1210				1215			
Glu	Arg	Leu	Ala	His	Leu	Tyr	Asp	Thr	Leu	His	Arg	Ala	Tyr	Ser	Lys
		1220					1225					1230			
Val	Thr	Glu	Val	Met	His	Ser	Gly	Arg	Arg	Leu	Leu	Gly	Thr	Tyr	Phe
	1235						1240					1245			
Arg	Val	Ala	Phe	Phe	Gly	Gln	Ala	Ala	Gln	Tyr	Gln	Phe	Thr	Asp	Ser
	1250					1255				1260					
Glu	Thr	Asp	Val	Glu	Gly	Phe	Phe	Glu	Asp	Glu	Asp	Gly	Lys	Glu	Tyr
1265				1270					1275					1280	
Ile	Tyr	Lys	Glu	Pro	Lys	Leu	Thr	Pro	Leu	Ser	Glu	Ile	Ser	Gln	Arg
			1285					1290				1295			
Leu	Leu	Lys	Leu	Tyr	Ser	Asp	Lys	Phe	Gly	Ser	Glu	Asn	Val	Lys	Met
		1300						1305				1310			
Ile	Gln	Asp	Ser	Gly	Lys	Val	Asn	Pro	Lys	Asp	Leu	Asp	Ser	Lys	Tyr
	1315						1320					1325			
Ala	Tyr	Ile	Gln	Val	Thr	His	Val	Ile	Pro	Phe	Phe	Asp	Glu	Lys	Glu
	1330					1335				1340					
Leu	Gln	Glu	Arg	Lys	Thr	Glu	Phe	Glu	Arg	Ser	His	Asn	Ile	Arg	Arg
1345				1350					1355					1360	
Phe	Met	Phe	Glu	Met	Pro	Phe	Thr	Gln	Thr	Gly	Lys	Arg	Gln	Gly	Gly
			1365					1370				1375			
Val	Glu	Glu	Gln	Cys	Lys	Arg	Arg	Thr	Ile	Leu	Thr	Ala	Ile	His	Cys
		1380						1385				1390			
Phe	Pro	Tyr	Val	Lys	Lys	Arg	Ile	Pro	Val	Met	Tyr	Gln	His	His	Thr
	1395						1400					1405			
Asp	Leu	Asn	Pro	Ile	Glu	Val	Ala	Ile	Asp	Glu	Met	Ser	Lys	Lys	Val
	1410					1415				1420					
Ala	Glu	Leu	Arg	Gln	Leu	Cys	Ser	Ser	Ala	Glu	Val	Asp	Met	Ile	Lys
1425				1430					1435					1440	
Leu	Gln	Leu	Lys	Leu	Gln	Gly	Ser	Val	Ser	Val	Gln	Val	Asn	Ala	Gly
			1445					1450				1455			
Pro	Leu	Ala	Tyr	Ala	Arg	Ala	Phe	Leu	Asp	Asp	Thr	Asn	Thr	Lys	Arg
	1460							1465				1470			
Tyr	Pro	Asp	Asn	Lys	Val	Lys	Leu	Leu	Lys	Glu	Val	Phe	Arg	Gln	Phe
	1475						1480					1485			
Val	Glu	Ala	Cys	Gly	Gln	Ala	Leu	Ala	Val	Asn	Glu	Arg	Leu	Ile	Lys
	1490					1495				1500					
Glu	Asp	Gln	Leu	Glu	Tyr	Gln	Glu	Glu	Met	Lys	Ala	Asn	Tyr	Arg	Glu
1505				1510					1515					1520	
Met	Ala	Lys	Glu	Leu	Ser	Glu	Ile	Met	His	Glu	Gln	Ile	Cys	Pro	Leu
			1525					1530				1535			
Glu	Glu	Lys	Thr	Ser	Val	Leu	Pro	Asn	Ser	Leu	His	Ile	Phe	Asn	Ala
		1540						1545				1550			
Ile	Ser	Gly	Thr	Pro	Thr	Ser	Thr	Met	Val	His	Gly	Met	Thr	Ser	Ser

1555  
Ser Ser Val Val  
1570

1560

1565

<210> 159  
<211> 540  
<212> DNA  
<213> Homo sapiens

<400> 159  
gccggctctg ccatgtgctt actctgagcc acctaacctc ggcgtgcttc agtttactca  
60  
tccgctcatc tgcagaatgg gtgatgctgt cggctacttcg tggcatacag gaaagtgtccc  
120  
agcatgggtca gcctcagtga gaggtggcca gtggggagtg gtggccactg tacacctggc  
180  
acagcccaga gatgcatgtg ccactctgtt gtgtgcttca accaaggggc gctctggcag  
240  
ggcttgggtg ggacttccca aagggcattg aaaagttccc agtcaatgag atccatggag  
300  
acccatggga gtgggggtca gcccagcct aagaggacct ccagccctgc cctgtgcccc  
360  
aggacacacc aggcactgtc ccttgctgcc ttcccagaca acctgtacct tccaggccac  
420  
cagttctcgt ccatgacaaa gaaaggagcc ttctaaataa gtgcccgcga gaggctgcac  
480  
gcttccctgc cccttccggg tggacctggg tttcaaagag aagctgccag tgcaacgcgt  
540

<210> 160  
<211> 110  
<212> PRT  
<213> Homo sapiens

<400> 160  
Met Val Ser Leu Ser Glu Arg Trp Pro Val Gly Ser Gly Gly His Cys  
1 5 10 15  
Thr Pro Gly Thr Ala Gln Arg Cys Met Cys His Ser Val Val Cys Phe  
20 25 30  
Asn Gln Gly Ala Leu Trp Gln Gly Leu Gly Gly Thr Ser Gln Arg Ala  
35 40 45  
Trp Lys Ser Ser Gln Ser Met Arg Ser Met Glu Thr His Gly Ser Gly  
50 55 60  
Gly Gln Pro Gln Pro Lys Arg Thr Pro Ser Pro Ala Leu Cys Pro Arg  
65 70 75 80  
Thr His Gln Ala Leu Ser Leu Val Ala Phe Pro Asp Asn Leu Tyr Pro  
85 90 95  
Pro Gly His Gln Phe Ser Ser Met Thr Lys Lys Gly Ala Phe  
100 105 110

<210> 161  
<211> 351  
<212> DNA  
<213> Homo sapiens

<400> 161  
 nnacgcgtac gtctttcggc cgaagaagga acgtgggcag gggcctcctt cgctggccgc  
 60  
 cgcgcttggc tcgcagcgac gatgaagggc gacgacagca gcaagatcac ccacaagatc  
 120  
 gcccgggcga agcgcgaggg ccgcgtatgg tggagctttg agtacttccc gccgcgcacg  
 180  
 ccgcagggca tgcagaattt gtatgaccgt atcgagcgca tgagtcagct gggccccgag  
 240  
 tttgtggaca ttacgtggaa tgccgggggc cggacgtcgg atatgacgac gcagctggtc  
 300  
 aagacggtgc atgcgtactt tgggtgctgag acgtgcatgc atctgacgtg c  
 351

<210> 162  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 162  
 Xaa Arg Val Arg Leu Ser Ala Glu Glu Gly Thr Trp Ala Gly Ala Ser  
 1 5 10 15  
 Phe Ala Gly Arg Arg Ala Trp Leu Ala Ala Thr Met Lys Gly Asp Asp  
 20 25 30  
 Ser Ser Lys Ile Thr His Lys Ile Ala Arg Ala Lys Arg Glu Gly Arg  
 35 40 45  
 Val Trp Trp Ser Phe Glu Tyr Phe Pro Pro Arg Thr Pro Gln Gly Met  
 50 55 60  
 Gln Asn Leu Tyr Asp Arg Ile Glu Arg Met Ser Gln Leu Gly Pro Glu  
 65 70 75 80  
 Phe Val Asp Ile Thr Trp Asn Ala Gly Gly Arg Thr Ser Asp Met Thr  
 85 90 95  
 Thr Gln Leu Val Lys Thr Val His Ala Tyr Phe Gly Val Glu Thr Cys  
 100 105 110  
 Met His Leu Thr Cys  
 115

<210> 163  
 <211> 360  
 <212> DNA  
 <213> Homo sapiens

<400> 163  
 gcgtgctcca tcggcacctt gcagatgggc gaattcgctg aaaacgtcgc cggtggcgtc  
 60  
 gacacctaca ccctgcgtca gcccatcggc gtatgcgcag gcatcactcc gttcaacttc  
 120  
 ccggcgatga ttccactgtg gatgttcccg atggcgattg cctgcggtaa cactttcgtg  
 180  
 ctcaaaccgt ccgaacaaga ccctctgtcg acgatgctgc tggtagaact ggcgctggaa  
 240  
 gccggtgtgc cggccggcgt gctcaacgtg gtgcacggcg gcaaggatgt ggtggatgcg  
 300



ctgtgcaccc ataaagatat caaggcagtt tctttcgtcg gttcgaccgc cgttggtacc  
360

<210> 164  
<211> 120  
<212> PRT  
<213> Homo sapiens

<400> 164  
Ala Cys Ser Ile Gly Thr Leu Gln Met Gly Glu Phe Ala Glu Asn Val  
1 5 10 15  
Ala Gly Gly Val Asp Thr Tyr Thr Leu Arg Gln Pro Ile Gly Val Cys  
20 25 30  
Ala Gly Ile Thr Pro Phe Asn Phe Pro Ala Met Ile Pro Leu Trp Met  
35 40 45  
Phe Pro Met Ala Ile Ala Cys Gly Asn Thr Phe Val Leu Lys Pro Ser  
50 55 60  
Glu Gln Asp Pro Leu Ser Thr Met Leu Leu Val Glu Leu Ala Leu Glu  
65 70 75 80  
Ala Gly Val Pro Ala Gly Val Leu Asn Val Val His Gly Gly Lys Asp  
85 90 95  
Val Val Asp Ala Leu Cys Thr His Lys Asp Ile Lys Ala Val Ser Phe  
100 105 110  
Val Gly Ser Thr Ala Val Gly Thr  
115 120

<210> 165  
<211> 728  
<212> DNA  
<213> Homo sapiens

<400> 165  
gctagcagcc ttcaccctcc tagaggggca ggctcggcga caaggggagg ggggtgccccg  
60  
tcccagcgag ggacgccccg ggctgggggt gccggtcgag cccggggcaa cagcttcacc  
120  
aagtttgga accgcaacgt cttcatgaag gacaacagct cttcttcag cacagactcc  
180  
cgctcccgt cctcctccag gtccccgacg cgccacttcc gcagaagtga ctcccactca  
240  
gactccgaca gctcctactc agggaaatgag tgtcaccctg tgggcccag gaacccgccc  
300  
cctaagggcc ggggagggtc aggggcccac atggatcggg gccgaggcag ggcgcagcgt  
360  
gggaagaggc acgatctggc gccaccaag cgcagtcgaa agaagatggc ggcgctggag  
420  
tgtgaggacc cggagcgaga gctgaagaag cagaagcggg cagcccgtt ccagcacgga  
480  
cactcccgcc gcctgcgcct cgagcccctg gtgctgcaga tgagcagcct ggagagcagt  
540  
ggggctgacc ctgactggca ggagctgcag atcgtgggca cctgccctga catcaccaag  
600  
cactacctgc gcctcacctg tgccccgac ccgtccaccg tgcgccctgt ggcattccct  
660

gtggcaggtt ttgaaaaagt cgctgtgcat ggtcaagtgc cactggaaag agaagcagga  
 720  
 ctacgcgt  
 728

<210> 166  
 <211> 242  
 <212> PRT  
 <213> Homo sapiens

<400> 166  
 Ala Ser Ser Leu His Pro Pro Arg Gly Ala Gly Ser Ala Thr Arg Gly  
 1 5 10 15  
 Gly Gly Ala Pro Ser Gln Arg Gly Thr Pro Gly Ala Gly Gly Ala Gly  
 20 25 30  
 Arg Ala Arg Gly Asn Ser Phe Thr Lys Phe Gly Asn Arg Asn Val Phe  
 35 40 45  
 Met Lys Asp Asn Ser Ser Ser Ser Ser Thr Asp Ser Arg Ser Arg Ser  
 50 55 60  
 Ser Ser Arg Ser Pro Thr Arg His Phe Arg Arg Ser Asp Ser His Ser  
 65 70 75 80  
 Asp Ser Asp Ser Ser Tyr Ser Gly Asn Glu Cys His Pro Val Gly Arg  
 85 90 95  
 Arg Asn Pro Pro Pro Lys Gly Arg Gly Gly Arg Gly Ala His Met Asp  
 100 105 110  
 Arg Gly Arg Gly Arg Ala Gln Arg Gly Lys Arg His Asp Leu Ala Pro  
 115 120 125  
 Thr Lys Arg Ser Arg Lys Lys Met Ala Ala Leu Glu Cys Glu Asp Pro  
 130 135 140  
 Glu Arg Glu Leu Lys Lys Gln Lys Arg Ala Ala Arg Phe Gln His Gly  
 145 150 155 160  
 His Ser Arg Arg Leu Arg Leu Glu Pro Leu Val Leu Gln Met Ser Ser  
 165 170 175  
 Leu Glu Ser Ser Gly Ala Asp Pro Asp Trp Gln Glu Leu Gln Ile Val  
 180 185 190  
 Gly Thr Cys Pro Asp Ile Thr Lys His Tyr Leu Arg Leu Thr Cys Ala  
 195 200 205  
 Pro Asp Pro Ser Thr Val Arg Pro Val Ala Phe Pro Val Ala Gly Phe  
 210 215 220  
 Glu Lys Val Ala Val His Gly Gln Val Pro Leu Glu Arg Glu Ala Gly  
 225 230 235 240  
 Leu Arg

<210> 167  
 <211> 510  
 <212> DNA  
 <213> Homo sapiens

<400> 167  
 nnacgcgtgg aaccagaact caggcccgtg tgaggagtct ggtttggaac acacggggcc  
 60  
 gcaacacaga attgtcaggt cctgtgccgt gaccaccaac cctcggggcca tgccaggtgc  
 120

tgggtgagggg caggtggctc ccgccaggcg cctgctggcc tgaccgcact ccgtccacag  
 180  
 gtcctcatgg gcgtcctccg gctgggcttc gtgtccgcct acctctcaca gccactgctc  
 240  
 gatggctttg ccatgggggc ctccgtgacc atcctgacct cgcagctcaa acacctgctg  
 300  
 ggcgtgcgga tcccgcggca ccagggggccc ggcattggtgg tcttcacatg gctgagcctg  
 360  
 ctgcgcggcg ccgggcaggc caacgtgtgc gacgtgggtca ccagcacggt gtgcctggcg  
 420  
 gtgctgctag ccgcgaagga gctctcagac cgctaccgac accgcctgag ggtgccgctg  
 480  
 cccacggagc tgctgggtcat cgtgggtggcc  
 510

<210> 168  
 <211> 128  
 <212> PRT  
 <213> Homo sapiens

<400> 168  
 Gly Ala Gly Gly Ser Arg Gln Ala Pro Ala Gly Leu Thr Ala Leu Arg  
 1 5 10 15  
 Pro Gln Val Leu Met Gly Val Leu Arg Leu Gly Phe Val Ser Ala Tyr  
 20 25 30  
 Leu Ser Gln Pro Leu Leu Asp Gly Phe Ala Met Gly Ala Ser Val Thr  
 35 40 45  
 Ile Leu Thr Ser Gln Leu Lys His Leu Leu Gly Val Arg Ile Pro Arg  
 50 55 60  
 His Gln Gly Pro Gly Met Val Val Leu Thr Trp Leu Ser Leu Leu Arg  
 65 70 75 80  
 Gly Ala Gly Gln Ala Asn Val Cys Asp Val Val Thr Ser Thr Val Cys  
 85 90 95  
 Leu Ala Val Leu Leu Ala Ala Lys Glu Leu Ser Asp Arg Tyr Arg His  
 100 105 110  
 Arg Leu Arg Val Pro Leu Pro Thr Glu Leu Leu Val Ile Val Val Ala  
 115 120 125

<210> 169  
 <211> 537  
 <212> DNA  
 <213> Homo sapiens

<400> 169  
 gaattccacc gcatgtcgtg tctggacgta tgtaggctgc ggtagtgtgc gaccgccggt  
 60  
 gccttaaagg agagcgggca tcggcggttc agtacgagag gggaagggtgt gcggatactt  
 120  
 attgtcgggtg cggcatcgtc catccacacc gtctgatggg tcaatggact ggtcaagcgg  
 180  
 ggtcacgagg ttcacctggc atcagtccat ccggcggggc gtcactccat tgatccccga  
 240  
 gttcggatcc acctggcccc acacggcggg aaggcaaaat acgtcgtcaa tgccggctgg  
 300

ctgcgatcag tggcggtctgg ggtgcaacct gacatcgtca acgtccacta tgcgaccggt  
 360  
 tatggtctgc tcgctcgtct tgcctatatt gacgccccga cgctgctgtc ggtgtgggga  
 420  
 agtgacgttt acgattcccc ccgggcaaatt cccctcatgc gtcacatggt ccgatccaac  
 480  
 ttggtctcag ctactcggat cgcacgcaca agccactgca tggcgcggtgt cacgcgt  
 537

<210> 170  
 <211> 164  
 <212> PRT  
 <213> Homo sapiens

<400> 170  
 Cys Ala Thr Ala Gly Ala Leu Lys Glu Ser Gly His Arg Arg Cys Ser  
 1 5 10 15  
 Thr Arg Gly Glu Gly Val Arg Ile Leu Ile Val Gly Ala Ala Ser Ser  
 20 25 30  
 Ile His Thr Val Arg Trp Val Asn Gly Leu Val Lys Arg Gly His Glu  
 35 40 45  
 Val His Leu Ala Ser Val His Pro Ala Gly Arg His Ser Ile Asp Pro  
 50 55 60  
 Arg Val Arg Ile His Leu Ala Pro His Gly Gly Lys Ala Lys Tyr Val  
 65 70 75 80  
 Val Asn Ala Gly Trp Leu Arg Ser Val Ala Ala Gly Val Gln Pro Asp  
 85 90 95  
 Ile Val Asn Val His Tyr Ala Thr Gly Tyr Gly Leu Leu Ala Arg Leu  
 100 105 110  
 Ala His Ile Asp Ala Pro Thr Leu Leu Ser Val Trp Gly Ser Asp Val  
 115 120 125  
 Tyr Asp Ser Pro Arg Ala Asn Pro Leu Met Arg His Met Val Arg Ser  
 130 135 140  
 Asn Leu Val Ser Ala Thr Arg Ile Ala Ser Thr Ser His Cys Met Ala  
 145 150 155 160  
 Arg Val Thr Arg

<210> 171  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 171  
 ctagacaagc tcgcgcgggt gggcttcgac actcttggtc tacagacctt cctaactgcg  
 60  
 ggggagaagg agtcccgcgc atggacgatt cacaagggcg acaccgcccc tgaggctgct  
 120  
 ggcgtcatcc ataccgactt ccagaagggg ttcacaaagg cccaggtggt gtccttcggc  
 180  
 gaccttggtg aatttgggcg cgaaaaggag gccacggctg ctgggaagct gcggttgag  
 240  
 ggcaaggagt acgttatgca ggacgggtgac gtagtggaat tccgatttaa cgtgtagctc  
 300

tggtttgata cttacttggc ttaaccgcat ctgagatccg tcatatcttt ggcgtagcct  
360

tattggtatg aataacatgc cgtagccaaa g  
391

<210> 172

<211> 98

<212> PRT

<213> Homo sapiens

<400> 172

Leu	Asp	Lys	Leu	Ala	Arg	Val	Gly	Phe	Asp	Thr	Leu	Gly	Leu	Gln	Thr
1				5					10					15	
Phe	Leu	Thr	Ala	Gly	Glu	Lys	Glu	Ser	Arg	Ala	Trp	Thr	Ile	His	Lys
			20					25					30		
Gly	Asp	Thr	Ala	Pro	Glu	Ala	Ala	Gly	Val	Ile	His	Thr	Asp	Phe	Gln
		35				40						45			
Lys	Gly	Phe	Ile	Lys	Ala	Gln	Val	Val	Ser	Phe	Gly	Asp	Leu	Val	Glu
	50				55						60				
Phe	Gly	Gly	Glu	Lys	Glu	Ala	Gln	Ala	Ala	Gly	Lys	Leu	Arg	Leu	Glu
65				70					75					80	
Gly	Lys	Glu	Tyr	Val	Met	Gln	Asp	Gly	Asp	Val	Val	Glu	Phe	Arg	Phe
				85					90					95	

Asn Val

<210> 173

<211> 309

<212> DNA

<213> Homo sapiens

<400> 173

ccatggagtg tcccttgtgc gagcattttg agagctatac caacacccat ccctgcaggt  
60  
cccagagccg agccatttct caggagagca ggaagggagc aggccgaggg gtgctcccag  
120  
ccagccccgg aacccgaggt ctggggacgc agccgaccag ccctccttgt ctgggcctct  
180  
gtttcctctt cgacacaggg aagcagggag gggccgatca gcgacttagg cctgttggct  
240  
gtggtggggg cccctgcgtt tctgggaagc cacggaccct gggatgtacc tgggtttcat  
300  
tcgcagtga  
309

<210> 174

<211> 102

<212> PRT

<213> Homo sapiens

<400> 174

Met	Glu	Cys	Pro	Leu	Cys	Glu	His	Phe	Glu	Ser	Tyr	Thr	Asn	Thr	His
.1				5					10					15	
Pro	Cys	Arg	Ser	Gln	Ser	Arg	Ala	Ile	Ser	Gln	Glu	Ser	Arg	Lys	Gly

```
<210> 175
<211> 8484
<212> DNA
<213> Homo sapiens
```

515

tccctgggga gccatactca tgcggggca agcggcatat cttgggcatc acctctatca  
1140  
gtgttttcac atactggaga atgggttcctt ggagcaagct cttcacaatc tttagcagtt  
1200  
cctccatgac cacagcgatg ccctgataac ccaggagtct gcagatagtc ttgaaagtgt  
1260  
ggagggtccca cgaagtcccg gtagctgccg taaatgctgg agtaggcca gttcaaagcc  
1320  
ttggatccat gcagatactg aggctgtgca ttaggctgct tatctctttg aaattcctga  
1380  
gaaaatggta acactgtccg aacaaaccgg ttggtagagc cgtttagca gtagttgggc  
1440  
aggaagtcac agttgagctc ccagaagacg tgcagggtga tcctcccgta gggcgctgac  
1500  
acgttgtggc tggcctcccg gaacatggcg tcgaagccgt ccagcgtcag gtaccggctc  
1560  
agcagcttgt gggcatgctg gttgatttcc aacaggccat ccagctcaac tatggaggtc  
1620  
aaatcttcac tttcaaactc tccaatcgcc agttctaggg acttatacat ggctgctgag  
1680  
acgcgctggg tgatcagacg attgaggtct attgatctgc cgaggagctg cacatgcctc  
1740  
tgcttcagca gcgtctcgta gcgggttagac ggcgggaggt ggatcgtggc tccctgattc  
1800  
ttgcattctg atcgtaaccg tttatcaaga agcaaacttc ctgccataac cttataatag  
1860  
gcaaatatct ggtctgccag cttgtagaca aactgatcaa aacacagggt cacctcagct  
1920  
tctatctcat cgtacaggaa ctgcttttta aacttgggtca gagcatagta ggcgctgtca  
1980  
ttgtacagat ccaggagta gagcacgtac tccatcatgg aagggtcttt ggtttccagg  
2040  
atatgggtccg ttagaatcca gggcatcgac atctcaatgg ggaactggat cctcctgccc  
2100  
atggtcagct ccaggaagaa ctctcggaac cacagctgct aaagggtcaca gcactgctgc  
2160  
agcgtttcac tgaaatttat caagtgagt tagaagaatg actctcgatg aaagtctct  
2220  
atggcgagga caatgggtcc atccaggctg ctctcaggg tcttcttgga gccgcttttg  
2280  
tctgcaatga gtgattcaag catggttctc accatgtaca gctgtgtgct ggatggcccc  
2340  
acagcacgcc ggggcacctt gatatcaaat ccacctttgg ggtccttctc cctctcaag  
2400  
catgggtcat tagggggctc tcgccctccc tcccagtcac agatgggtct tcgaattgcc  
2460  
tgtaggacgc tgatgaggac attcttcttc ttcggtaccg cctgccgcag gggctcacgc  
2520  
agcgtcacct gggcgaagtc ctgcaatgcc gcgtagatgg tgttcctgat ggcctgggtg  
2580  
aagacgtctt ccatcctgcc catgagcacc tgcaggcctt tgatcatggc gatcacctca  
2640  
acgaaggcaa atttttcttc actgggtgta ttgtagcgtg tggctctctc atattcctcc  
2700



gcggtgccag gacagtcctt gttgcagaac ttgtctgtgg gatgaaccag cttccaagag  
2760  
tacacctcca tgacgtgggc gctccacttg gatagaagct gcagaccccg cagggctagg  
2820  
tcgaagagct cgcgatactc ctctgtctgac ttctggetgt ccagccctga gcccgtcacc  
2880  
acctcactgt tgetgttagcg agcgagctcg gagatgaagc ggatgtgggc atcccggatc  
2940  
tgaaccatct gctcgcagat attgtactgg gggctgatgc tgetctgggt gcacgtccat  
3000  
cgagatttat ttctctcgta gtgggcgctg gtcttgatat atcttgccag ttctatttgc  
3060  
atgtcccaa atagtggaa cacctggagt tgcttgaagt acttgctgat ttgggataag  
3120  
tttattcttt tcttggcatc caacttatag atgttactga cactcccatc catcaggtac  
3180  
agaccaaadc ccatgacttt gagaagcatg tgtttctcac tgggcgtcaa atacatcctg  
3240  
ttctcgtagt aatccacaca cagattcaca atatctgcca ggagctcttc gtagccagaa  
3300  
atcacttcga gctgetgctg cagagactgt gtgatcttgt tatgattggc caggaacatg  
3360  
gacagattct gcgattcctg gatggactgt ggatctgcca ttttacgtaa aaactgtgct  
3420  
gccctcttgt aggcagagtg gtcgttcttg acgctgcact tcatgttctt cagatcgtcc  
3480  
agcacagcga acatgttgat gaatttgccc agtgtgatca ggtaggcttc tgacacgaag  
3540  
tccttctgct gctcggcatg gcacagccgc ttcacctcgc tgcagaaccg ctcgatggcc  
3600  
ttgcgctgaa aatacatgaa cttcatgagc ttgggtgacct ccggctccag cacctctact  
3660  
gtcttctcat agatctctac tcggttgggc tgctcgttgc atttcacctg gggaatggcc  
3720  
cgggaacagc tgcgccaggt gtacagcatg accgcatact catgtccttc ctccagcatc  
3780  
tcattcatgc tggagtggac tgtagcctgc tcaatgtacc ttgcaatgcc cgtgacaaat  
3840  
gcattcctgt cctcaaagtt tgtgtcaaag ttagcctggg acatgatgga ggaagggtgga  
3900  
ggctcgatgc atggctgctg gtcggggagg ggaagctctt caagcaggtc cacgttggac  
3960  
agggcatctt ccagggtgac gtgcgtgggc atggctgcag tttctgtatt ctgcactggc  
4020  
tctgcggcgg gtccagggga ggggcctgag gctaccgcag ggccccgcgc cggggcgcag  
4080  
gatgctctgc cccgctccgc tgcgcgccca gtgcagaata cagaaactgc agccatgacc  
4140  
acgcacgtca ccttgaaga tgccctgtcc aacgtggacc tgcttgaaga gcttcccctc  
4200  
cccagaccgc agccatgcat cgagcctcca ccttctcca tcatgtacca ggctaacttt  
4260  
gacacaaact ttgaggacag gaatgcattt gtcacgggca ttgcaaggta cattgagcag  
4320

gctacagtcc actccagcat gaatgagatg ctggaggaag gacatgagta tgcgggtcatg  
4380  
ctgtacacct ggcgcagctg ctcccggggc atcccacagg tgaaatgtaa cgagcagcct  
4440  
aacagagtgg aaatctacga gaaaaccgtg gaggttctgg agcctgaggt cacaaaactg  
4500  
atgaatttca tgtacttcca gagaaatgcc attgagcgtt tctgcgggga agtgaggcgc  
4560  
ctgtgccatg ccgagaggag gaaggacttc gtgtcagaag cctacctgat cacactgggc  
4620  
aaattcatca acatgttcgc tgtgctggac gagctgaaga acatgaagtg cagtgtgaag  
4680  
aacgaccact cagcgtacaa gagggccgct cagtttttac gtaaaatggc agatccacag  
4740  
tccatccagg aatcgcagaa tctgtccatg ttcctggcca atcataacaa gatcacacag  
4800  
tctctgcagc agcagctcga agtgatttct ggctacgaag agctcctggc agatattgtg  
4860  
aatctgtgtg tggattacta cgagaacagg atgtatttga cgcccagtga gaaacacatg  
4920  
cttctcaaag tcatgggatt tggctctgtac ctgatggatg ggagtgtcag taacatctat  
4980  
aagttggatg ccaagaaaag aataaactta tccaaaatcg acaagtactt caagcaactc  
5040  
caggtgggtc cgctatttgg ggacatgcaa atagaactgg caagatatat caagaccagc  
5100  
gcccactacg aggaaaataa atctc gatgg acgtgcacat cctccggcag cagccctcag  
5160  
tacaacatct gcgagcagat gatccagatc cgcgaggacc acatgcgctt catttcggag  
5220  
ctggcgcgct acagcaacag cgagggtggtc acgggctcgg gccgccagga ggcccagaag  
5280  
acggacgcgg agtaccgcaa gctcttcgac ctggcgctgc agggcctgca gctgttgcg  
5340  
cagtggagcg cgcacgtgat ggaagtgtat tcctggaagc ttgtgcaccc caccgacaag  
5400  
tactccaaca aggactgccc cgacagcgct gaagagtacg agcgtgccac gcgctacaac  
5460  
tacaccagcg aggagaagtt tgccctagtg gaggtgatcg ccatgatcaa aggcctgcag  
5520  
gtgctgatgg gcaggatgga gagcgtgttc aaccacgcca tccggcacac cgtctatgcc  
5580  
gcactgcagg acttctccca ggtgaccctt agggagccgc tgcggcaggc catcaagaag  
5640  
aagaagaacg tcatccagag tgtcctgcag gccatcagga agaccgtgtg tgactgggag  
5700  
acggggcatg agcccttcaa tgaccagcc ttgcggggcg agaaggacc caagagcggc  
5760  
ttcgacataa aagtaccacg ccgcgccgtg ggaccctcca gcactcagct ttacatgggtg  
5820  
agaaccatgc tagagtccct cattgcagac aaaagtgggt ccaagaaaac cttgagaagt  
5880  
agccttgagg ggcccacat attggacata gaaaaatttc atcgagagtc attcttctac  
5940

actcacttga taaatttcag tgaaacgctg cagcagtgtg gtgacctttc gcagctgtgg  
6000  
ttccgagagt tcttcctgga gctgaccatg ggcaggagga tccagttccc cattgagatg  
6060  
tcgatgccct ggatcctgac ggaccacatc ctggagacca aggaggcatc gatgatggag  
6120  
tacgtgtctt actccctgga cctgtacaat gacagcgccc actacgcgct caccagggtc  
6180  
aacaagcagt tcctgtacga cgaaattgag gccgaggtga atctatgttt tgaccaattt  
6240  
gtttacaagc tagcagacca gatatttgcc tattataagg ttatggcagg aagtttgctt  
6300  
cttgataaac ggttacgatc agaatgcaag aatcaggagc ccacgatcca cctcccgcgc  
6360  
tctaaccgct acgagacgct gctgaagcag aggcattgtc agctcctcgg cagatcaata  
6420  
gacctcaatc gtctgatcac ccagcgctc tcagcagcca tgtataagtc cctagaactg  
6480  
gcgattggac gatttgaaag tgaagatttg acctccatag ttgagctgga tggcctgttg  
6540  
gaaatcaacc gcatgacca caagctgctg agccggtacc tgacgctgga cggcttcgac  
6600  
gccatgttcc gggaggccaa ccacaacgtg tcagcgccct acgggaggat caccctgcac  
6660  
gtcttctggg agctcaacta tgacttcctg cccaactact gctacaacgg ctctaccaac  
6720  
cggtttgctt ggacagtgtt accattttct caggaatttc aaagagataa gcagccta  
6780  
gcacagcctc agtatctgca tggatccaag gctttgaact tggcctactc cagcatttac  
6840  
ggcagctacc ggaacttcgt gggacctcca cactttcaag tcattctgccg gcttctcggc  
6900  
taccagggtg tcgccgtggg catggaggag ctgctgaagg tcgtcaagag cctgctgcaa  
6960  
ggcacatcc tgcagtacgt gaagacgctg atggaggtga tgcccaagat ctgccgcctg  
7020  
ccccggcacg agtacggctc tcctggtatc ctggagttct tccaccacca gctgaaggac  
7080  
atcgtggagt acgcagagct gaagacggtg tgcttccaga acctgcggga ggtggggaac  
7140  
gccatcctct tctgcctgct catcgagcag agcctgtctt tagaagaagt gtgtgacctg  
7200  
ctgcacgagg ctcccttcca gaacatcttg ccgcgagctc atgtgaaaga gggggagaga  
7260  
cttgatgcca aaatgaaaag actagaatca aagtacgccc cgctgcatct tgtcccactg  
7320  
attgaaagac tggggacccc tcagcaaatt gccatcgcaa gagaggggga cctgctgaca  
7380  
aaggagcgcc tctgctgagg cctgtccatg tttgaggtca tcctgacacg gatccggagc  
7440  
tttctggatg accccatctg gcgcgggcct ctgccagca atggggtcat gcatgtggac  
7500  
gagtgtgtgg agtttcacag actgtggagt gccatgcagt ttgtctactg cattcccgtg  
7560

gggacacacg agttcacagt cgagcagtcg tttggtgatg ggctacactg ggctggctgt  
 7620  
 atgatcatcg tacttcttgg gcagcagcgg cgttttgctg tgctggattt ctgctaccat  
 7680  
 ctacttaaag tccagaaaca tgatggcaaa gatgagatta ttaaaaatgt gcctttgaag  
 7740  
 aagatggtgg agagaattcg caagttccag attctcaatg atgagatcat caccatcctg  
 7800  
 gataagtacc tgaagtcagg cgacggggag ggcacgccag tggagcatgt gcgctgcttc  
 7860  
 cagccgcca tccaccagtc cctcgccagc agctgagggc acgcgctgca ctccgtaact  
 7920  
 caacatggca tgcctttctc tccgtaaaact atttagtgag attttttaggg actatttttc  
 7980  
 agtatctctg tacctgttaa aggggggtgct tttcgatcta aaaacttaat tttataaaat  
 8040  
 tgacttattt ttctagacta aaattgtata tgcttttggt aattaggaac tcttgagaat  
 8100  
 attggtgct gattgttgcc atcacgttcc tacaaaattg tttttctatg ggatgttctg  
 8160  
 gcagctgtgt cataaaatgc tgctgggttc attcattcat tccataagaa acttaatacc  
 8220  
 agcaaagca ttaaataccct tgccagttac cattaactgt aactatttag cttttgttta  
 8280  
 gggatctttc tgatggtctt ttatgagcaa tcttagttct aagtcattgt tcccatccct  
 8340  
 tttttgtgtg tttcagaaaa tagtgaactt gattccctcg cttccactaa atccagttgt  
 8400  
 gacaaaatct aacgtgacat cagatcgaaa gggtatagaa ataaaactaa tgagatctaa  
 8460  
 aaaaaaaaaa aaaaaaaaaa aaaa  
 8484

&lt;210&gt; 176

&lt;211&gt; 1393

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 176

Met	Ala	Arg	Glu	Gln	Leu	Arg	Gln	Val	Tyr	Ser	Met	Thr	Ala	Tyr	Ser
1				5					10					15	
Cys	Pro	Ser	Ser	Ser	Ile	Ser	Phe	Met	Leu	Glu	Trp	Thr	Val	Ala	Cys
			20					25					30		
Ser	Met	Tyr	Leu	Ala	Met	Pro	Val	Thr	Asn	Ala	Phe	Leu	Ser	Ser	Lys
			35				40					45			
Phe	Val	Ser	Lys	Leu	Ala	Trp	Tyr	Met	Met	Glu	Glu	Gly	Gly	Gly	Ser
	50					55				60					
Met	His	Gly	Cys	Trp	Ser	Gly	Arg	Gly	Ser	Ser	Ser	Ser	Arg	Ser	Thr
65					70				75					80	
Leu	Asp	Arg	Ala	Ser	Ser	Arg	Val	Thr	Cys	Val	Val	Met	Ala	Ala	Val
			85						90				95		
Ser	Val	Phe	Cys	Thr	Gly	Ser	Ala	Ala	Gly	Pro	Gly	Glu	Gly	Pro	Glu
			100				105					110			
Ala	Thr	Ala	Gly	Pro	Arg	Ala	Gly	Ala	Gln	Asp	Ala	Leu	Pro	Arg	Ser

WO 00/58473

115 120 125  
 Ala Ala Pro Pro Val Gln Asn Thr Glu Thr Ala Ala Met Thr Thr His  
 130 135 140  
 Val Thr Leu Glu Asp Ala Leu Ser Asn Val Asp Leu Leu Glu Glu Leu  
 145 150 155 160  
 Pro Leu Pro Asp Gln Gln Pro Cys Ile Glu Pro Pro Pro Ser Ser Ile  
 165 170 175  
 Met Tyr Gln Ala Asn Phe Asp Thr Asn Phe Glu Asp Arg Asn Ala Phe  
 180 185 190  
 Val Thr Gly Ile Ala Arg Tyr Ile Glu Gln Ala Thr Val His Ser Ser  
 195 200 205  
 Met Asn Glu Met Leu Glu Glu Gly His Glu Tyr Ala Val Met Leu Tyr  
 210 215 220  
 Thr Trp Arg Ser Cys Ser Arg Ala Ile Pro Gln Val Lys Cys Asn Glu  
 225 230 235 240  
 Gln Pro Asn Arg Val Glu Ile Tyr Glu Lys Thr Val Glu Val Leu Glu  
 245 250 255  
 Pro Glu Val Thr Lys Leu Met Asn Phe Met Tyr Phe Gln Arg Asn Ala  
 260 265 270  
 Ile Glu Arg Phe Cys Gly Glu Val Arg Arg Leu Cys His Ala Glu Arg  
 275 280 285  
 Arg Lys Asp Phe Val Ser Glu Ala Tyr Leu Ile Thr Leu Gly Lys Phe  
 290 295 300  
 Ile Asn Met Phe Ala Val Leu Asp Glu Leu Lys Asn Met Lys Cys Ser  
 305 310 315 320  
 Val Lys Asn Asp His Ser Ala Tyr Lys Arg Ala Ala Gln Phe Leu Arg  
 325 330 335  
 Lys Met Ala Asp Pro Gln Ser Ile Gln Glu Ser Gln Asn Leu Ser Met  
 340 345 350  
 Phe Leu Ala Asn His Asn Lys Ile Thr Gln Ser Leu Gln Gln Gln Leu  
 355 360 365  
 Glu Val Ile Ser Gly Tyr Glu Glu Leu Leu Ala Asp Ile Val Asn Leu  
 370 375 380  
 Cys Val Asp Tyr Tyr Glu Asn Arg Met Tyr Leu Thr Pro Ser Glu Lys  
 385 390 395 400  
 His Met Leu Leu Lys Val Met Gly Phe Gly Leu Tyr Leu Met Asp Gly  
 405 410 415  
 Ser Val Ser Asn Ile Tyr Lys Leu Asp Ala Lys Lys Arg Ile Asn Leu  
 420 425 430  
 Ser Lys Ile Asp Lys Tyr Phe Lys Gln Leu Gln Val Val Pro Leu Phe  
 435 440 445  
 Gly Asp Met Gln Ile Glu Leu Ala Arg Tyr Ile Lys Thr Ser Ala His  
 450 455 460  
 Tyr Glu Glu Asn Lys Ser Arg Trp Thr Cys Thr Ser Ser Gly Ser Ser  
 465 470 475 480  
 Pro Gln Tyr Asn Ile Cys Glu Gln Met Ile Gln Ile Arg Glu Asp His  
 485 490 495  
 Met Arg Phe Ile Ser Glu Leu Ala Arg Tyr Ser Asn Ser Glu Val Val  
 500 505 510  
 Thr Gly Ser Gly Arg Gln Glu Ala Gln Lys Thr Asp Ala Glu Tyr Arg  
 515 520 525  
 Lys Leu Phe Asp Leu Ala Leu Gln Gly Leu Gln Leu Leu Ser Gln Trp  
 530 535 540  
 Ser Ala His Val Met Glu Val Tyr Ser Trp Lys Leu Val His Pro Thr

545		550		555		560
Asp Lys Tyr Ser	Asn Lys Asp Cys Pro	Asp Ser Ala Glu Glu Tyr Glu				
	565	570			575	
Arg Ala Thr Arg	Tyr Asn Tyr Thr Ser	Glu Glu Lys Phe Ala Leu Val				
	580	585			590	
Glu Val Ile Ala Met	Ile Lys Gly Leu Gln Val	Leu Met Gly Arg Met				
	595	600			605	
Glu Ser Val Phe Asn	His Ala Ile Arg His Thr	Val Tyr Ala Ala Leu				
	610	615			620	
Gln Asp Phe Ser Gln	Val Thr Leu Arg Glu Pro	Leu Arg Gln Ala Ile				
625	630	635			640	
Lys Lys Lys Lys Asn	Val Ile Gln Ser Val	Leu Gln Ala Ile Arg Lys				
	645	650			655	
Thr Val Cys Asp Trp	Glu Thr Gly His Glu Pro	Phe Asn Asp Pro Ala				
	660	665			670	
Leu Arg Gly Glu Lys	Asp Pro Lys Ser Gly Phe	Asp Ile Lys Val Pro				
	675	680			685	
Arg Arg Ala Val Gly	Pro Ser Ser Thr Gln	Leu Tyr Met Val Arg Thr				
	690	695			700	
Met Leu Glu Ser Leu	Ile Ala Asp Lys Ser	Gly Ser Lys Lys Thr Leu				
705	710	715			720	
Arg Ser Ser Leu Glu	Gly Pro Thr Ile Leu	Asp Ile Glu Lys Phe His				
	725	730			735	
Arg Glu Ser Phe Phe	Tyr Thr His Leu Ile	Asn Phe Ser Glu Thr Leu				
	740	745			750	
Gln Gln Cys Cys Asp	Leu Ser Gln Leu Trp	Phe Arg Glu Phe Phe Leu				
	755	760			765	
Glu Leu Thr Met Gly	Arg Arg Ile Gln Phe	Pro Ile Glu Met Ser Met				
	770	775			780	
Pro Trp Ile Leu Thr	Asp His Ile Leu Glu	Thr Lys Glu Ala Ser Met				
785	790	795			800	
Met Glu Tyr Val Leu	Tyr Ser Leu Asp Leu	Tyr Asn Asp Ser Ala His				
	805	810			815	
Tyr Ala Leu Thr Arg	Phe Asn Lys Gln Phe	Leu Tyr Asp Glu Ile Glu				
	820	825			830	
Ala Glu Val Asn Leu	Cys Phe Asp Gln Phe	Val Tyr Lys Leu Ala Asp				
	835	840			845	
Gln Ile Phe Ala Tyr	Tyr Lys Val Met Ala	Gly Ser Leu Leu Leu Asp				
	850	855			860	
Lys Arg Leu Arg Ser	Glu Cys Lys Asn Gln	Gly Ala Thr Ile His Leu				
865	870	875			880	
Pro Pro Ser Asn Arg	Tyr Glu Thr Leu Leu	Lys Gln Arg His Val Gln				
	885	890			895	
Leu Leu Gly Arg Ser	Ile Asp Leu Asn Arg	Leu Ile Thr Gln Arg Val				
	900	905			910	
Ser Ala Ala Met Tyr	Lys Ser Leu Glu Leu	Ala Ile Gly Arg Phe Glu				
	915	920			925	
Ser Glu Asp Leu Thr	Ser Ile Val Glu Leu	Asp Gly Leu Leu Glu Ile				
	930	935			940	
Asn Arg Met Thr His	Lys Leu Leu Ser Arg	Tyr Leu Thr Leu Asp Gly				
945	950	955			960	
Phe Asp Ala Met Phe	Arg Glu Ala Asn His	Asn Val Ser Ala Pro Tyr				
	965	970			975	
Gly Arg Ile Thr Leu	His Val Phe Trp Glu	Leu Asn Tyr Asp Phe Leu				

	980		985		990
Pro Asn Tyr Cys Tyr Asn Gly Ser Thr Asn Arg Phe Val Arg Thr Val					
995		1000		1005	
Leu Pro Phe Ser Gln Glu Phe Gln Arg Asp Lys Gln Pro Asn Ala Gln					
1010		1015		1020	
Pro Gln Tyr Leu His Gly Ser Lys Ala Leu Asn Leu Ala Tyr Ser Ser					
1025		1030		1035	1040
Ile Tyr Gly Ser Tyr Arg Asn Phe Val Gly Pro Pro His Phe Gln Val					
1045		1050		1055	
Ile Cys Arg Leu Leu Gly Tyr Gln Gly Ile Ala Val Val Met Glu Glu					
1060		1065		1070	
Leu Leu Lys Val Val Lys Ser Leu Leu Gln Gly Thr Ile Leu Gln Tyr					
1075		1080		1085	
Val Lys Thr Leu Met Glu Val Met Pro Lys Ile Cys Arg Leu Pro Arg					
1090		1095		1100	
His Glu Tyr Gly Ser Pro Gly Ile Leu Glu Phe Phe His His Gln Leu					
1105		1110		1115	1120
Lys Asp Ile Val Glu Tyr Ala Glu Leu Lys Thr Val Cys Phe Gln Asn					
1125		1130		1135	
Leu Arg Glu Val Gly Asn Ala Ile Leu Phe Cys Leu Leu Ile Glu Gln					
1140		1145		1150	
Ser Leu Ser Leu Glu Glu Val Cys Asp Leu Leu His Ala Ala Pro Phe					
1155		1160		1165	
Gln Asn Ile Leu Pro Arg Val His Val Lys Glu Gly Glu Arg Leu Asp					
1170		1175		1180	
Ala Lys Met Lys Arg Leu Glu Ser Lys Tyr Ala Pro Leu His Leu Val					
1185		1190		1195	1200
Pro Leu Ile Glu Arg Leu Gly Thr Pro Gln Gln Ile Ala Ile Ala Arg					
1205		1210		1215	
Glu Gly Asp Leu Leu Thr Lys Glu Arg Leu Cys Cys Gly Leu Ser Met					
1220		1225		1230	
Phe Glu Val Ile Leu Thr Arg Ile Arg Ser Phe Leu Asp Asp Pro Ile					
1235		1240		1245	
Trp Arg Gly Pro Leu Pro Ser Asn Gly Val Met His Val Asp Glu Cys					
1250		1255		1260	
Val Glu Phe His Arg Leu Trp Ser Ala Met Gln Phe Val Tyr Cys Ile					
1265		1270		1275	1280
Pro Val Gly Thr His Glu Phe Thr Val Glu Gln Cys Phe Gly Asp Gly					
1285		1290		1295	
Leu His Trp Ala Gly Cys Met Ile Ile Val Leu Leu Gly Gln Gln Arg					
1300		1305		1310	
Arg Phe Ala Val Leu Asp Phe Cys Tyr His Leu Leu Lys Val Gln Lys					
1315		1320		1325	
His Asp Gly Lys Asp Glu Ile Ile Lys Asn Val Pro Leu Lys Lys Met					
1330		1335		1340	
Val Glu Arg Ile Arg Lys Phe Gln Ile Leu Asn Asp Glu Ile Ile Thr					
1345		1350		1355	1360
Ile Leu Asp Lys Tyr Leu Lys Ser Gly Asp Gly Glu Gly Thr Pro Val					
1365		1370		1375	
Glu His Val Arg Cys Phe Gln Pro Pro Ile His Gln Ser Leu Ala Ser					
1380		1385		1390	
Ser					



<210> 177  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

<400> 177  
 acgcgtgatg tcacactgcc tctgccgctg ggtcctaatt cgattgcacg caccatggct  
 60  
 gcagttcgtg gcgcgcatag tttctggcat gcttcgcgca tcctggagac cgatcccgcc  
 120  
 gctgccgtga aaccgcctaa aaatgtgaag cgattgccc aagccgtgtc cgtggagcaa  
 180  
 atgcaaaagc tccttgccat acccagtctt aagactccta ccggcctgcg taatcgagcg  
 240  
 atacttgagt tcttatatgc taccggcgcg cgcgtgagcg agatgctggc aacagacctg  
 300  
 gacgatatac acctgggcga aaaaccccg c gatgaaaacg gggaatctat tgcacttccc  
 360  
 ggggtatgtg gccttttttg aaagggaggt aaagagcgtt tagtcccttt gggatcc  
 417

<210> 178  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

<400> 178  
 Thr Arg Asp Val Thr Leu Pro Leu Pro Leu Gly Pro Asn Ser Ile Ala  
 1 5 10 15  
 Arg Thr Met Ala Ala Val Arg Gly Ala His Ser Phe Trp His Ala Ser  
 20 25 30  
 Arg Ile Leu Glu Thr Asp Pro Ala Ala Ala Val Lys Pro Pro Lys Asn  
 35 40 45  
 Val Lys Arg Leu Pro Lys Ala Val Ser Val Glu Gln Met Gln Lys Leu  
 50 55 60  
 Leu Ala Ile Pro Ser Leu Lys Thr Pro Thr Gly Leu Arg Asn Arg Ala  
 65 70 75 80  
 Ile Leu Glu Phe Leu Tyr Ala Thr Gly Ala Arg Val Ser Glu Met Leu  
 85 90 95  
 Ala Thr Asp Leu Asp Asp Ile His Leu Gly Glu Lys Pro Arg Asp Glu  
 100 105 110  
 Asn Gly Glu Ser Ile Ala Leu Pro Gly Tyr Val Arg Leu Phe Gly Lys  
 115 120 125  
 Gly Gly Lys Glu Arg Leu Val Pro Leu Gly Ser  
 130 135

<210> 179  
 <211> 362  
 <212> DNA  
 <213> Homo sapiens

<400> 179  
 acgcgtcgaa ggtgccggtg ggggcgatca ataacatcgc gcaatccctg gaagagcctc  
 60

WO 00/58473

aggtgattgc ccgtgggttg atggtggaag atcccccatc cccaagaatc cgggaattcg  
 120  
 ccattggggc gggcagcccg aatccaaaat gtcggggcac gccagtgagg agtatggtaa  
 180  
 ggggccggca ccgatgttgg nggcagcata cggatggaag tgctgggcga gcgcctgggt  
 240  
 ttgccggcag agcaactggg gcagctcaag gcgggcgggg tgatcgagca gttggattga  
 300  
 gcaatggcgg ccgcgaagcc cgccatttac cttgatgact gtttagcgcg cggattcttt  
 360  
 aa  
 362

<210> 180  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 180  
 Met Ala Gly Phe Ala Ala Ala Ile Ala Gln Ser Asn Cys Ser Ile Thr  
 1 5 10 15  
 Pro Pro Ala Leu Ser Cys Pro Ser Cys Ser Ala Gly Lys Pro Arg Arg  
 20 25 30  
 Ser Pro Ser Thr Ser Ile Arg Met Leu Pro Pro Thr Ser Val Pro Ala  
 35 40 45  
 Pro Tyr His Thr Pro Thr Gly Arg Ala Pro Thr Phe Trp Ile Arg Ala  
 50 55 60  
 Ala Arg Pro Asn Gly Glu Phe Pro Asp Ser Trp Gly Cys Gly Ile Phe  
 65 70 75 80  
 His His Gln Pro Thr Gly Asn His Leu Arg Leu Phe Gln Gly Leu Arg  
 85 90 95  
 Asp Val Ile Asp Arg Pro His Arg His Leu Arg Arg  
 100 105

<210> 181  
 <211> 297  
 <212> DNA  
 <213> Homo sapiens

<400> 181  
 gcgttgatca tgtccgaccc aggcttgatc atgctggtac gccgtcactt cccgtgcatg  
 60  
 ccgattcact tgctgggtaca ggccaatacg gtgaattggg ccagcgtcga gttctggcaa  
 120  
 cagcaaggta tctgccgggt aatcctgtcg cgggaattgt cactggaaga aatcggcgaa  
 180  
 atccgccaac aggtgccggc catggagctg gaagtgtttg tgcacgggtgc cctgtacatg  
 240  
 gcctattccg ggcgctgttt gttgtccggc tatatgaaca agcgcgatgc caaccaa  
 297

<210> 182  
 <211> 99  
 <212> PRT

<213> Homo sapiens

<400> 182

```

Ala Leu Ile Met Ser Asp Pro Gly Leu Ile Met Leu Val Arg Arg His
 1           5           10           15
Phe Pro Cys Met Pro Ile His Leu Ser Val Gln Ala Asn Thr Val Asn
          20           25           30
Trp Ala Ser Val Glu Phe Trp Gln Gln Gln Gly Ile Cys Arg Val Ile
          35           40           45
Leu Ser Arg Glu Leu Ser Leu Glu Glu Ile Gly Glu Ile Arg Gln Gln
          50           55           60
Val Pro Ala Met Glu Leu Glu Val Phe Val His Gly Ala Leu Tyr Met
65           70           75           80
Ala Tyr Ser Gly Arg Cys Leu Leu Ser Gly Tyr Met Asn Lys Arg Asp
          85           90           95
Ala Asn Gln

```

<210> 183

<211> 351

<212> DNA

<213> Homo sapiens

<400> 183

```

cgggacgtca ccatgaagcc gaccggctcg ggggatgtgg cgaacaaggt catcacccat
60
attccgttta acatcgtctc ccaggcgact catccattcc ttcgtacctt ggacgatgtc
120
aagcgcattc ctttggcgac cgacgggctc ggccaccagg tcctgctcaa gggctaccag
180
gccgagggcc acgactacgc acaccccgac tacggcgagg acgtctccca ccgtgccggc
240
gggatgaagg atctcgagaa gctcaccgag tcgggcaggc agtggaacac cgatttcggc
300
attcacgtca acctggtgga gtcctatcct gaggcgaatc atttcggcga c
351

```

<210> 184

<211> 117

<212> PRT

<213> Homo sapiens

<400> 184

```

Arg Asp Val Thr Met Lys Pro Thr Gly Ser Gly Asp Val Ala Asn Lys
 1           5           10           15
Val Ile Thr His Ile Pro Phe Asn Ile Val Ser Gln Ala Thr His Pro
          20           25           30
Phe Leu Arg Thr Leu Asp Asp Val Lys Arg Ile Ser Leu Ala Thr Asp
          35           40           45
Gly Leu Gly His Gln Val Leu Leu Lys Gly Tyr Gln Ala Glu Gly His
          50           55           60
Asp Tyr Ala His Pro Asp Tyr Gly Gly Asn Val Ser His Arg Ala Gly
65           70           75           80
Gly Met Lys Asp Leu Glu Lys Leu Thr Glu Ser Gly Arg Gln Trp Asn

```

WO 00/58473

85 90 95  
 Thr Asp Phe Gly Ile His Val Asn Leu Val Glu Ser Tyr Pro Glu Ala  
 100 105 110  
 Asn His Phe Gly Asp  
 115

<210> 185  
 <211> 396  
 <212> DNA  
 <213> Homo sapiens

<400> 185  
 cgcggtgggtc tcagtaaaga aaatttggtg cttagaggat gcaccattag aaacacagag  
 60  
 gctgttggtg gcattgtggt ttatgcaggc catgaaacca aagcaatgct gaacaacagt  
 120  
 gggccacggt ataagcgcag caaattagaa agaagagcaa acacagatgt cctctggtgt  
 180  
 gtcattgcttc tggtcataat gtgcttaact ggcgcagtag gtcattggaat ctggctgagc  
 240  
 aggtatgaaa agatgcattt tttcaatggt cccgagcctg atggacatat catatcacca  
 300  
 ctgttggcag gattttatat gttttggacc gtgatcattt tgttacaggt cttgattcct  
 360  
 atttctctct atgtttccat cgaaattgtg aagctt  
 396

<210> 186  
 <211> 132  
 <212> PRT  
 <213> Homo sapiens

<400> 186  
 Arg Val Gly Leu Ser Lys Glu Asn Leu Leu Leu Arg Gly Cys Thr Ile  
 1 5 10 15  
 Arg Asn Thr Glu Ala Val Val Gly Ile Val Val Tyr Ala Gly His Glu  
 20 25 30  
 Thr Lys Ala Met Leu Asn Asn Ser Gly Pro Arg Tyr Lys Arg Ser Lys  
 35 40 45  
 Leu Glu Arg Arg Ala Asn Thr Asp Val Leu Trp Cys Val Met Leu Leu  
 50 55 60  
 Val Ile Met Cys Leu Thr Gly Ala Val Gly His Gly Ile Trp Leu Ser  
 65 70 75 80  
 Arg Tyr Glu Lys Met His Phe Phe Asn Val Pro Glu Pro Asp Gly His  
 85 90 95  
 Ile Ile Ser Pro Leu Leu Ala Gly Phe Tyr Met Phe Trp Thr Val Ile  
 100 105 110  
 Ile Leu Leu Gln Val Leu Ile Pro Ile Ser Leu Tyr Val Ser Ile Glu  
 115 120 125  
 Ile Val Lys Leu  
 130

<210> 187  
 <211> 423

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 187

cgagtgtca ccgcgtcagc cgtcatgcgt cccactgagg ctgttgcttc tcggtcggca  
60  
gaacctcgac gagttcagcg gatcctggac cagcgcgagt gggctggcgt cttcgttgct  
120  
gatgagcatc gtcgtttgct tggcacggtc ggcgatcaag aggtcatcga ggctgctcgc  
180  
cgcgagatc gcagtattgc tgacgcggtg gaaactaacg gcatacctcac ggcgcgagacc  
240  
gacactccgt tgtccgagct cttcgtctccg accagcaacg ccaggggtgcc gttggccgtt  
300  
gtcgacgagg acttccacct catgggtgtc atctctcggg tgaccctgct cgacgcgatg  
360  
tcacgagctc gcgacgagggc aggagagggga tctgtcatgt ccttggagaa caccggaaag  
420  
ctt  
423

&lt;210&gt; 188

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 188

Arg	Val	Leu	Thr	Ala	Ser	Ala	Val	Met	Arg	Pro	Thr	Glu	Ala	Val	Val
1				5				10					15		
Ser	Arg	Ser	Ala	Glu	Pro	Arg	Arg	Val	Gln	Arg	Ile	Leu	Asp	Gln	Arg
			20					25					30		
Glu	Trp	Ala	Gly	Val	Phe	Val	Val	Asp	Glu	His	Arg	Arg	Leu	Leu	Gly
		35					40					45			
Thr	Val	Gly	Asp	Gln	Glu	Val	Ile	Glu	Ala	Ala	Arg	Arg	Gly	Asp	Arg
	50					55					60				
Ser	Ile	Ala	Asp	Ala	Val	Glu	Thr	Asn	Gly	Ile	Leu	Thr	Ala	Arg	Thr
65				70					75				80		
Asp	Thr	Pro	Leu	Ser	Glu	Leu	Phe	Ala	Pro	Thr	Ser	Asn	Ala	Arg	Val
			85					90					95		
Pro	Leu	Ala	Val	Val	Asp	Glu	Asp	Phe	His	Leu	Met	Gly	Val	Ile	Ser
		100						105					110		
Arg	Val	Thr	Leu	Leu	Asp	Ala	Met	Ser	Arg	Ala	Arg	Asp	Glu	Ala	Gly
		115					120					125			
Glu	Gly	Ser	Val	Met	Ser	Leu	Glu	Asn	Thr	Gly	Lys	Leu			
	130					135					140				

&lt;210&gt; 189

&lt;211&gt; 429

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 189

ngatggttta ccaacatatg cacggttcga gcggcaatag ctctcgggg gctggcagtg  
60

WO 00/58473

aaatgtttga agatgccggc gtttccggcc tcaacttggt tcgatgccgt ggttccaccg  
 120  
 atttcgccga tgcggctcat cgcacgggta agaagtttcg tccagataac ccaggacaga  
 180  
 gcaagggtata tcaggctcag aaccaggaaa agcaggggctt taccccagtg ccccatatag  
 240  
 accgcgctag ctacggcaaa aggcgcgccc agtgggggtcc aggacagcac ttcatgggt  
 300  
 gaaggagcg catcccnagc ttcgcctagc cccagagcta acccagcgac cagtggacca  
 360  
 gcgcccata tcagtaggaa ccctacgata atcagccctt gttttacccc tggaatggag  
 420  
 ctgatttcn  
 429

<210> 190  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

<400> 190  
 Met Met Gly Ala Gly Pro Leu Val Ala Gly Leu Ala Leu Gly Leu Gly  
 1 5 10 15  
 Glu Ala Xaa Asp Ala Leu Pro Ser Ala Met Lys Val Leu Ser Trp Thr  
 20 25 30  
 Pro Leu Gly Ala Pro Phe Ala Val Ala Ser Ala Val Tyr Met Gly His  
 35 40 45  
 Trp Gly Lys Ala Leu Leu Phe Leu Val Leu Ser Leu Ile Tyr Leu Ala  
 50 55 60  
 Leu Ser Trp Val Ile Trp Thr Lys Leu Leu Asn Arg Ala Met Ser Arg  
 65 70 75 80  
 Ile Gly Glu Ile Gly Gly Thr Thr Ala Ser Lys Gln Val Glu Ala Gly  
 85 90 95  
 Asn Ala Gly Ile Phe Lys His Phe Thr Ala Ser Pro Arg Gly Ala Ile  
 100 105 110  
 Ala Ala Arg Thr Val His Met Leu Val Asn His  
 115 120

<210> 191  
 <211> 4845  
 <212> DNA  
 <213> Homo sapiens

<400> 191  
 ccgcccgggg ccatggcgac actcagcttc gtcttcctgc tgctgggggc agtgtcctgg  
 60  
 cctccggctt ctgcctccgg ccaggagtcc tggcccggac aatcggcggc cgatattctg  
 120  
 tcggggggcg cttcccgcag acggtatctt ctgtatgacg tcaaccccc ggaaggcttc  
 180  
 aacctgcgca gggatgtcta tatccgaatc gcctctctcc tgaagactct gctgaagacg  
 240  
 gaggagtggg tgcttgcctt gcctccatgg ggccgcctct atcactggca gagtccctgac.  
 300

atccaccagg tccggattcc ctggtctgag ttttttgatc ttccaagtct caataaaaac  
360  
atccccgtca tccagtatga gcagttcatc gcagaatctg gtgggccctt tattgaccag  
420  
gtttacgtcc tgcaaagtta cgcagagggg tggaaagaag ggacctggga agagaagggtg  
480  
gacgagcggc cgtgtattga tcagctcctg tactcccagg acaagcacga gtactacaga  
540  
ggatggtttt ggggttatga ggagaccagg ggtctaaacg tctcctgtct gtccgtccag  
600  
ggctcagcct ccatcgtggc gccctgctg ctgagaaaca catcagcccg gtccgtgatg  
660  
ttagacagag ccgagaacct acttcacgac cactatggag ggaaagaata ctgggatacc  
720  
cgtcgcagca tgggtgtttgc caggcacctg cgggaggtgg gagacgagtt caggagcaga  
780  
catctcaact ccacggacga cgcagacagg atccccctcc aggaggactg gatgaagatg  
840  
aaggtcaagc tgggtccgc gctagggggc ccctacctgg gagtccacct gagaagaaaa  
900  
gatttcatct ggggtcacag acaggatgta cccagtctgg aaggggccgt gaggaagatc  
960  
cgcagcctca tgaagaccca ccggtggac aaggtgtttg tggccacaga tgccgtcaga  
1020  
aaggaatatg aagagctaaa aaagctgtta cccgagatgg tgaggtttga acccacgtgg  
1080  
gaggagctgg agctctacaa ggacggaggc gttgcgatta ttgaccagtg gatctgcgca  
1140  
cacgccaggt gcctgcccac gtcactgtcg gccgagagcg ggtcgggtgg ctttcaaagg  
1200  
ttcttctgtc ccaagtactc ggtgtcagag cagatggctg cctgtgttca cagtggctcat  
1260  
ttccatactg tttgcctcct cgtctgagtc tcctgtagca tctggttcag tgtttccctg  
1320  
ggctgaagtt aattgttcat cttgccccct tagttctcat gcacagaatt cctccatagc  
1380  
aggctgttgg catagctggc ctcgtctcag aacctcttct tgtgtcgcac tttcccatca  
1440  
ttcccggttt ctgccccctg ctgccccctg ccctgagagt tgcccgtgcc ctggacttgg  
1500  
gcatgtcctt gttgctgtgt tgttgagcat ccgtgagcgt ccccgaggcc gggagcgtgg  
1560  
gccctcgtgt gatcattctc gtggggctgc catgagcgtc cccaaggctg ggagcatggg  
1620  
ccctcgtgtg atcgttcttg tggggctgcc gtgagcgtcc ccgaggccgg gagcgtgggc  
1680  
cctcgtgtga tcattctcgt ggggctgccg tgagcgtccc agaggccggg agcgtgggcc  
1740  
ctgctgagcag tcattctctt ggggttgcgt tgggaggtac gcctgggcct ctgttcctcc  
1800  
aaagacctgc ctgcccattc gcataggaga tgaaggctgg ggttaggggtg aaacggtttg  
1860  
agttaaattg aaaatgaaag tagagggaaat gatcttcccc gtggtttagca ctgtgcacac  
1920



gcgtgcgtct ctgtgggtta gtctgtctct ctctgcccc aggaatgctg agcgccctga  
1980  
gccgggtgct cttcacacat ctgctatttc ctgtgggtgt ctgggcatgg tgtataagac  
2040  
ccacagaggc tccgggtgat gctgtctgct ggggtgtgggt ccccttccct gttaagcaga  
2100  
caggatgcag cgctgacttc ttaggtcagg gcggagggtg gcaggagccc agtcacgagc  
2160  
tcacccctgc ttctcaggtg tggccttggg attttgactg cgaccttggc ggtgctgtct  
2220  
ccgcagccca ggaagcctgc tgtggggagg ctctgcactg agctctcagc ctctgccc  
2280  
cagctgcgcg aagcgctcgg ccagctcac tgaagctgcc ctgcctccgg gccggcgcg  
2340  
cctgctctgg caggccctg tgtgtggggg ggtgagggtc tccccaccag tgctgcacc  
2400  
cgcagcagca tacaggcctg tgtggcctgc tggcctgtg gctctgtgta cagcgctgtg  
2460  
catgttacat ttgctctgga aacatctctg gggtttgctt gttcacgaag ttcataagt  
2520  
gccgctggag agccagagac cagctgcgca ggagccggag gaacgggcag gccgctgacc  
2580  
tgaggctctg agaaaccct ggagaagggt gtccccacca gccatacag cgtgtgtgtg  
2640  
gagggggcct tgacctcgt gatgtctact gtgcctcagg ataaggacc gccatgccct  
2700  
ggctagacag tgtgtgggtta gtaggaatct ctattgttc accatgtgac cccaggagg  
2760  
tattcgacct gcactggcgt gcctggcctg ggatttggtg acggagagga gggctcccag  
2820  
ggggacatgc ggtgggacag gagcgtggcg gctgctgact gtggggtgtg gatggggctg  
2880  
cagcaccagg cagagccct cagggcgccg atgtcgagg cacctgagcg aggggtgcc  
2940  
gcaagggggc ggccggctgg tgggtgctcg ggggacggc gtgttggttc catgtaactg  
3000  
tggaactcat ttactcagc tgctcctctc agttctccct gactctggaa cctctgtgac  
3060  
cccagttctc cctgactctg gaacctctgt gatcctttgc aggttttttt attggcacct  
3120  
cagtctcaac attttctttt cggattcatg aggaaagaga aatcctgggg ttggacccca  
3180  
agacgacgta caacagggtc tgcggagacc aagagaaggc gtgtgagcaa cccaccact  
3240  
ggaagatcac ctactgagga ggatcctcca gggccgctcc ccggacccga caggcgcg  
3300  
tggtatgcagg ttctgtcgcc gtggagtcac cgtctactgc cagccgggag ctgggcggac  
3360  
aggaccgtcc ctctcagggt cccaggccca gaagaggccc cacgcctcta gagctgggct  
3420  
ccgtcctcgg cgttgccagc cgccatggct gatgaagagg ctccgctgct ctccggggcg  
3480  
gcggttgttt tcaggcagcg tctgtgaacc cacagctcgg ttgccagcag tgcccgcg  
3540

gtgaccaga agcaggagt tttgtcaggc tcccgtctg gcctttccag ccacctttca  
 3600  
 tgtcttcata ttttaagtgc attgaggata gatgcaggcg ggtgagctgc cctccgtcag  
 3660  
 gtggaccg gctgacattt ccctgggagc tgggtgcaagg agaagcgtca ttttaaagt  
 3720  
 ctgcagagcg accagggggc tcatgaatct ctccgttgcc ctccgcgcag caggaggctg  
 3780  
 cctgtgtgtt tcctcctggg acgcgtgcaa ggcagacctg gtgctgcaaa ggaaagggcc  
 3840  
 tgaggcctca gggagccccg tggagggatg acagttcagg ccctactgct ggcacgtcag  
 3900  
 agcactggga agtttttcag tgacgtctct ggggcactca gtggattgtc ttaggaaac  
 3960  
 ttgcagctct gtcctcaca ccaggccccg ctggccaccc accctcgccc ccactggcca  
 4020  
 cccctccctc gccccgactg ccccgcccca cctcaccct gactgccccg ccctcgccccg  
 4080  
 gctggccgtc cctgcccctg ccccggtctg caggtgcaca tggggcctcc aggtctgcca  
 4140  
 ttcgctattg agaactagaa atgaggaagg acagttacgc taactccaaa aggtctgcta  
 4200  
 ggatgagctg ctttatcagg gagctccttg taccattttt acagaaatca ttttaggtc  
 4260  
 tttgtgccac caccacgagg ggcattctgca aagagggcaa cgctagacac agaatccgtg  
 4320  
 gaaggtgcag cagtgcctca ggggtcctca gggtcaggga gccccctca ccctcttggc  
 4380  
 ccgttaccct ttgtgacttt ccaccatggt gtcgtgtgac cctcagtcag gttggtgggg  
 4440  
 gctgagtcct cactgagcag ccactttcca catctgctag aggaacagt acatggacac  
 4500  
 ctgtgacaga gagaggacag ttagtgagga gggacagaca gctcttcctt tcggagcctg  
 4560  
 gctagtctag gacatcacct tgetgtgtct tctcaagctt ttaaaattga ccctgaacgt  
 4620 cctatggtgt tactcaaagc tgtgcagggt aaatgatgac atatatttc 4680  
 tttttccatt tgttctagaa acagtgcctt tttcatcagt tgcattttcc aggtgagag  
 4740  
 ctgtataaaa cattttggac tgtgaccatg taccttcctt ttttaagaaaa ataaactgct  
 4800  
 ttatggaagt tggtaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa  
 4845

&lt;210&gt; 192

&lt;211&gt; 428

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 192

Pro Pro Gly Ala Met Ala Thr Leu Ser Phe Val Phe Leu Leu Leu Gly  
 1 5 10 15  
 Ala Val Ser Trp Pro Pro Ala Ser Ala Ser Gly Gln Glu Phe Trp Pro  
 20 25 30  
 Gly Gln Ser Ala Ala Asp Ile Leu Ser Gly Ala Ala Ser Arg Arg Arg

```
<210> 193
<211> 350
<212> DNA
<213> Homo sapiens
```

&lt;400&gt; 193

gcccggcgagc tggactgcgc catcatggcc gagcccttcc ccgacaccgg cctggccacg  
60  
gcgcagctgt acgacgagcc cttcgtcgtc gcgctgcggg cgtcgcaccc gctggccgac  
120  
cgtgccagca tcagccccga ggaggtcaag ggcgagacca tgttgatgtt gggcacgggc  
180  
ccctggtttc cccgggcccg cgggtgggggt ttggcccga tttggcgcgt ttctccagcg  
240  
ccgttaaggg catacgccgc agtttcgagg gctcgtcgtt ggagaccatc aagcacatcg  
300  
tggcttcggg catggcgtga cgggtggtgcc gcagctgtcc gtgccgcgcg  
350

&lt;210&gt; 194

&lt;211&gt; 116

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 194

Ala	Gly	Glu	Leu	Asp	Cys	Ala	Ile	Met	Ala	Glu	Pro	Phe	Pro	Asp	Thr
1				5					10					15	
Gly	Leu	Ala	Thr	Ala	Gln	Leu	Tyr	Asp	Glu	Pro	Phe	Val	Val	Ala	Leu
			20					25						30	
Arg	Ala	Ser	His	Pro	Leu	Ala	Asp	Arg	Ala	Ser	Ile	Ser	Pro	Glu	Glu
		35					40					45			
Val	Lys	Gly	Glu	Thr	Met	Leu	Met	Leu	Gly	Thr	Gly	Pro	Trp	Phe	Pro
	50				55						60				
Arg	Ala	Arg	Gly	Gly	Gly	Leu	Ala	Arg	Ile	Trp	Arg	Val	Ser	Pro	Ala
65					70				75					80	
Pro	Leu	Arg	Ala	Tyr	Ala	Ala	Val	Ser	Arg	Ala	Arg	Arg	Trp	Arg	Pro
				85					90					95	
Ser	Ser	Thr	Ser	Trp	Leu	Arg	Ala	Trp	Arg	Asp	Gly	Gly	Ala	Ala	Ala
			100					105						110	
Val	Arg	Ala	Ala												
			115												

&lt;210&gt; 195

&lt;211&gt; 495

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 195

acgcgtgaac gcgacggctt ggcgacgga ggcgtcggcc ccgtcgttga gtgggccggt  
60  
gaaatgggtc gcttcgacga aagcgagact ctcgaccgcc ttgcatcggg cgtccttgaa  
120  
ccagaacttg gcgacgattt ggccgccgtc ctgctcgatt ctcacgggt tgctgtcatc  
180  
agcgagggat cgaactggct tgcctcgcta cccgtgatcg taggtcgcaa cacggaacag  
240  
tttcgcagca taccagacct tgcccgcgac cggatcgaca aactgcacca gttgagccat  
300

cgcgaaatag cacgaaatcg cgagctcctg cgtgcccgcg ctgcgtcggg gcaggtgcgg  
 360  
 cactgccacg gcgacgcaca cctcggcaac atcgtcatga ttgacggcaa gccggtcctg  
 420  
 ttcgacgcga tcgaatttga tcttgatata gcgacaacgg atgtgctgta cgatttcgcg  
 480  
 ttccctctga tggat  
 495

<210> 196  
 <211> 165  
 <212> PRT  
 <213> Homo sapiens

<400> 196  
 Thr Arg Glu Arg Asp Gly Leu Ala Ile Gly Gly Val Gly Pro Val Val  
 1 5 10 15  
 Glu Trp Ala Val Glu Met Val Arg Phe Asp Glu Ser Glu Thr Leu Asp  
 20 25 30  
 Arg Leu Ala Ser Gly Val Leu Glu Pro Glu Leu Gly Asp Asp Leu Ala  
 35 40 45  
 Ala Val Leu Leu Asp Ser His Arg Val Ala Val Ile Ser Glu Gly Ser  
 50 55 60  
 Asn Trp Leu Ala Ser Leu Pro Val Ile Val Gly Arg Asn Thr Glu Gln  
 65 70 75 80  
 Phe Arg Ser Ile Pro Asp Leu Ala Arg Asp Arg Ile Asp Lys Leu His  
 85 90 95  
 Gln Leu Ser His Arg Glu Ile Ala Arg Asn Arg Glu Leu Leu Arg Ala  
 100 105 110  
 Arg Ala Ala Ser Gly Gln Val Arg His Cys His Gly Asp Ala His Leu  
 115 120 125  
 Gly Asn Ile Val Met Ile Asp Gly Lys Pro Val Leu Phe Asp Ala Ile  
 130 135 140  
 Glu Phe Asp Pro Asp Ile Ala Thr Thr Asp Val Leu Tyr Asp Phe Ala  
 145 150 155 160  
 Phe Pro Leu Met Asp  
 165

<210> 197  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<400> 197  
 caagcaatgc ttgacgcagt tgttgaatac ttaccagcac cgactgatat tccagcaatc  
 60  
 aaaggtatca atccagatga aactgaaggt gaacgtcacg caagcgatga tgagccattc  
 120  
 tcttcattag cattcaaaat tgcaactgac ccatttcgtag gtaacttaac cttcttcggt  
 180  
 gtgtactcag gtgtaattaa ctctggtgat acagtattaa actctgtacg tcaaaaacgt  
 240  
 gaacgttttg gtcgtatcgt acagatgcac gctaataaac gtgaagaaat taaagaagtt  
 300

cgtgcgggcg atatcgctgc agcaatcggc ttaaaagatg taactacggg tgaaccatta  
360  
tgtgctgtcg atgcaccaat cattcttgag cgtatggaat tc  
402

<210> 198  
<211> 134  
<212> PRT  
<213> Homo sapiens

<400> 198  
Gln Ala Met Leu Asp Ala Val Val Glu Tyr Leu Pro Ala Pro Thr Asp  
1 5 10 15  
Ile Pro Ala Ile Lys Gly Ile Asn Pro Asp Glu Thr Glu Gly Glu Arg  
20 25 30  
His Ala Ser Asp Asp Glu Pro Phe Ser Ser Leu Ala Phe Lys Ile Ala  
35 40 45  
Thr Asp Pro Phe Val Gly Asn Leu Thr Phe Phe Arg Val Tyr Ser Gly  
50 55 60  
Val Ile Asn Ser Gly Asp Thr Val Leu Asn Ser Val Arg Gln Lys Arg  
65 70 75 80  
Glu Arg Phe Gly Arg Ile Val Gln Met His Ala Asn Lys Arg Glu Glu  
85 90 95  
Ile Lys Glu Val Arg Ala Gly Asp Ile Ala Ala Ala Ile Gly Leu Lys  
100 105 110  
Asp Val Thr Thr Gly Glu Pro Leu Cys Ala Val Asp Ala Pro Ile Ile  
115 120 125  
Leu Glu Arg Met Glu Phe  
130

<210> 199  
<211> 507  
<212> DNA  
<213> Homo sapiens

<400> 199  
acgcgtgaag tcgtgcatag atcgggtgtga catagagaag cctccgaccc aagctgcgta  
60  
tategcacia agaccaagcg accctggacg ttctagacag aactctgcta cgaggcctga  
120  
caatagtga atccccgaga acccagctat ggaagggttt ccagatgctc gaaggcctgt  
180  
cataccagag gttagggttaa actgtatgga gactttcgag gtgaaagttg actcgccggt  
240  
aaagcctgct cctaaagagg atttagatct gatagatcta tcttcagatt caacctcggg  
300  
gcctgaaaaa cactctatac tctcaacctc cgacagcgac tctcttgat ttgagcctct  
360  
tccctctctc agaatagtcg agagtgcga agaagaggag acgatgaacc aaggcgatga  
420  
cggccccctc ggtaaaaatg ctgcctcttc tccctccatc cccagccatc cctccgctct  
480  
cagcctgagc acagctccgc ttgtaca  
507

WO 00/58473

<210> 200  
 <211> 153  
 <212> PRT  
 <213> Homo sapiens

<400> 200  
 Met Glu Gly Glu Glu Ala Ala Phe Leu Pro Glu Gly Pro Ser Ser Pro  
 1 5 10 15  
 Trp Phe Ile Val Ser Ser Ser Ser Ser Leu Ser Thr Ile Leu Arg Glu  
 20 25 30  
 Gly Arg Gly Ser Asn Thr Arg Glu Ser Leu Ser Glu Val Glu Ser Ile  
 35 40 45  
 Glu Cys Phe Ser Gly Pro Glu Val Glu Ser Glu Asp Arg Ser Ile Arg  
 50 55 60  
 Ser Lys Ser Ser Leu Gly Ala Gly Phe Thr Gly Glu Ser Thr Phe Thr  
 65 70 75 80  
 Ser Lys Val Ser Ile Gln Phe Asn Leu Thr Ser Gly Met Thr Gly Leu  
 85 90 95  
 Arg Ala Ser Gly Asn Pro Ser Ile Ala Gly Phe Ser Gly Ile Ser Leu  
 100 105 110  
 Leu Ser Gly Leu Val Ala Glu Phe Cys Leu Glu Arg Pro Gly Ser Leu  
 115 120 125  
 Gly Leu Cys Ala Ile Tyr Ala Ala Trp Val Gly Gly Phe Ser Met Ser  
 130 135 140  
 His Arg Ser Met His Asp Phe Thr Arg  
 145 150

<210> 201  
 <211> 527  
 <212> DNA  
 <213> Homo sapiens

<400> 201  
 gatgtggcta ttatccctgt ttcccagggtg agaaacaggg tcagtgatag agctgggatg  
 60  
 tgtgcctgca ggctcaccag ccagtccct cctcaccaag gatgatgttc tccgtgggtga  
 120  
 gctggctcctt ggtctcctgg aactcgtggc gcacctgggc cagctgcgcc tcgaaggcat  
 180  
 ccttctccat ctctttggct agctgcaagt tctggagctg ctcgttgagg tctgtgatct  
 240  
 catccacctg ctggttgagc gtgcgcttga ggaaggccac aatctccttc ttgttattgg  
 300  
 ccagctgctc aaactcctgg cggaacatct tctcctgcac agccagctca tcccacttcc  
 360  
 gctggtaccg ggctagccgg tcctccaggt ctcgatctg gatgtggtag aactccttca  
 420  
 tctccttggc cagaggcggc tccacggcca ccaccggctc cttcttgccc cttttcttct  
 480  
 tgacttcaag ctcttgcct gccttgcct cactcttttt gggaggc  
 527

<210> 202

<211> 70  
 <212> PRT  
 <213> Homo sapiens

<400> 202  
 Gly Arg Pro Gln Ser Pro Ser Cys Tyr Trp Pro Ala Ala Gln Thr Pro  
 1 5 10 15  
 Gly Gly Thr Ser Ser Pro Ala Gln Pro Ala His Pro Thr Ser Ala Gly  
 20 25 30  
 Thr Gly Leu Ala Gly Pro Pro Gly Leu Gly Ser Gly Cys Gly Arg Thr  
 35 40 45  
 Pro Ser Ser Pro Trp Pro Glu Ala Ala Pro Arg Pro Pro Pro Ala Pro  
 50 55 60  
 Ser Cys Pro Leu Ser Ser  
 65 70

<210> 203  
 <211> 304  
 <212> DNA  
 <213> Homo sapiens

<400> 203  
 ngtgcaccgg tggatcatgga caacgccgcc tacgtggtct acacctcggg atccaccggc  
 60  
 cgacccaagg gagttgtcgt caccacacacc ggactcgaca gcttcgcact cgaccagcag  
 120  
 cgtcgattcc acgcagatca ccactctcga accctgcact tcgccacccc cagcttcgac  
 180  
 ggagccgtct tcgagtacct gcaggcattc ggtgtcggag ccaccatggt gatcgtcccg  
 240  
 accgacatct acggcggcgc cgaactggca agtctcatcc gccgcgaaca cgtcactcac  
 300  
 gcgt  
 304

<210> 204  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 204  
 Xaa Ala Pro Val Val Met Asp Asn Ala Ala Tyr Val Val Tyr Thr Ser  
 1 5 10 15  
 Gly Ser Thr Gly Arg Pro Lys Gly Val Val Val Thr His Thr Gly Leu  
 20 25 30  
 Asp Ser Phe Ala Leu Asp Gln Gln Arg Arg Phe His Ala Asp His His  
 35 40 45  
 Ser Arg Thr Leu His Phe Ala Thr Pro Ser Phe Asp Gly Ala Val Phe  
 50 55 60  
 Glu Tyr Leu Gln Ala Phe Gly Val Gly Ala Thr Met Val Ile Val Pro  
 65 70 75 80  
 Thr Asp Ile Tyr Gly Gly Ala Glu Leu Ala Ser Leu Ile Arg Arg Glu  
 85 90 95  
 His Val Thr His Ala



100

<210> 205  
<211> 356  
<212> DNA  
<213> Homo sapiens

<400> 205  
nngaattcag caatgataac tggctcaatt gaaggtaaga caacaattga gggaattaat  
60  
gcacaattaa atacagtgtt aactttattt tcaccacaat caaaagataa agatttaatc  
120  
atgccagatc aacaagaaga aatagatatt ctgattgcaa ccgactgtat ttcagaagga  
180  
cagaacttac aagattgtga ttacttaata aactatgaca ttcattggaa tccagttcgt  
240  
atcattcaaa gatttggacg gattgatcga attggttcga agaataaatg tgtacaatta  
300  
gttaactttt ggccagatat tacattagat gaatatattg atctaaaggg acgcgt  
356

<210> 206  
<211> 118  
<212> PRT  
<213> Homo sapiens

<400> 206  
Xaa Asn Ser Ala Met Ile Thr Gly Ser Ile Glu Gly Lys Thr Thr Ile  
1 5 10 15  
Glu Gly Ile Asn Ala Gln Leu Asn Thr Val Leu Thr Leu Phe Ser Pro  
20 25 30  
Gln Ser Lys Asp Lys Asp Leu Ile Met Pro Asp Gln Gln Glu Glu Ile  
35 40 45  
Asp Ile Leu Ile Ala Thr Asp Cys Ile Ser Glu Gly Gln Asn Leu Gln  
50 55 60  
Asp Cys Asp Tyr Leu Ile Asn Tyr Asp Ile His Trp Asn Pro Val Arg  
65 70 75 80  
Ile Ile Gln Arg Phe Gly Arg Ile Asp Arg Ile Gly Ser Lys Asn Lys  
85 90 95  
Cys Val Gln Leu Val Asn Phe Trp Pro Asp Ile Thr Leu Asp Glu Tyr  
100 105 110  
Ile Asp Leu Lys Gly Arg  
115

<210> 207  
<211> 324  
<212> DNA  
<213> Homo sapiens

<400> 207  
acgcgtgcac tgtgtgtatg catggtaacg tacacgtgtg cactgtgtgt ggtgtgcatg  
60  
catggtgtgt gcacgtgtng cactgtgtgt ggatgcatgg taatgtgcac gtgtgcactg  
120

tgtgtggtgt gtatgcatgg tgtgtgcacg tgtgcactgt gtgtgtgtgt atgcatgtgt  
 180  
 gtgcacatgt gcactgtgtg gtgtgtatgc atggtgtgtg cacgtgtgca ctgtgtatgc  
 240  
 atgngtgtgt gcatgtgtgc actgtgtatg catagtgtgc acgtgtgcac tgtgtggtgt  
 300  
 gtatgcatgg taatgtgcac gtgt  
 324

<210> 208  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 208  
 Thr Arg Ala Leu Cys Val Cys Met Val Thr Tyr Thr Cys Ala Leu Cys  
 1 5 10 15  
 Val Val Cys Met His Gly Val Cys Thr Cys Xaa Thr Val Cys Gly Cys  
 20 25 30  
 Met Val Met Cys Thr Cys Ala Leu Cys Val Val Cys Met His Gly Val  
 35 40 45  
 Cys Thr Cys Ala Leu Cys Val Cys Val Cys Met Cys Val His Met Cys  
 50 55 60  
 Thr Val Trp Cys Val Cys Met Val Cys Ala Arg Val His Cys Val Cys  
 65 70 75 80  
 Met Xaa Val Cys Met Cys Ala Leu Cys Met His Ser Val His Val Cys  
 85 90 95  
 Thr Val Trp Cys Val Cys Met Val Met Cys Thr Cys  
 100 105

<210> 209  
 <211> 168  
 <212> DNA  
 <213> Homo sapiens

<400> 209  
 nntccagag gttatgaggt tggaagcccg gtttttttca ggtgcagaaa aggctaccat  
 60  
 attcaagggt ccacgactcg cacctgcctt gccaatTTaa catggagtgg gatacagacc  
 120  
 gaatgtatac ctcatgcctg cagacagcca gaaaccccg cacacgcg  
 168

<210> 210  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 210  
 Xaa Ser Arg Gly Tyr Glu Val Gly Ser Pro Val Phe Phe Arg Cys Arg  
 1 5 10 15  
 Lys Gly Tyr His Ile Gln Gly Ser Thr Thr Arg Thr Cys Leu Ala Asn  
 20 25 30  
 Leu Thr Trp Ser Gly Ile Gln Thr Glu Cys Ile Pro His Ala Cys Arg

35 40 45  
 Gln Pro Glu Thr Pro Ala His Ala  
 50 55

<210> 211  
 <211> 354  
 <212> DNA  
 <213> Homo sapiens

<400> 211  
 tacatgggct ttgacacagt ggtggctgaa gctgcactaa ggggtgtttgg aggcaatgtc  
 60  
 cagctggcag ctcagaccct tgcacaccat ggaggaagcc tcccacccga cctgcagttc  
 120  
 tcaggagagg actcctcccc cacaccgtcc acatccccat ctgactctgc agggacctct  
 180  
 agtgcctcga cagatgaaga catggagacg gaggtgtca acgaaatcct ggaggacatt  
 240  
 ccggagcacg aggaggacta cctggactcc acgctggagg atgaagaagt cattattgct  
 300  
 gaatacttgt cctgcgttga aagtataagt tctgcngca aagaacaact gatc  
 354

<210> 212  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 212  
 Tyr Met Gly Phe Asp Thr Val Val Ala Glu Ala Ala Leu Arg Val Phe  
 1 5 10 15  
 Gly Gly Asn Val Gln Leu Ala Ala Gln Thr Leu Ala His His Gly Gly  
 20 25 30  
 Ser Leu Pro Pro Asp Leu Gln Phe Ser Gly Glu Asp Ser Ser Pro Thr  
 35 40 45  
 Pro Ser Thr Ser Pro Ser Asp Ser Ala Gly Thr Ser Ser Ala Ser Thr  
 50 55 60  
 Asp Glu Asp Met Glu Thr Glu Ala Val Asn Glu Ile Leu Glu Asp Ile  
 65 70 75 80  
 Pro Glu His Glu Glu Asp Tyr Leu Asp Ser Thr Leu Glu Asp Glu Glu  
 85 90 95  
 Val Ile Ile Ala Glu Tyr Leu Ser Cys Val Glu Ser Ile Ser Ser Ala  
 100 105 110  
 Xaa Lys Glu Gln Leu Ile  
 115

<210> 213  
 <211> 669  
 <212> DNA  
 <213> Homo sapiens

<400> 213  
 attgccaat ctcagagtgt ccaggaaagc ctggagagcc tggtgcagtc tattggggaa  
 60

gttgaacaaa acctggaagg gaaacaggtg tcatcactct catcaggagt catccaggaa  
 120  
 gccttagcca caaatatgaa attgaagcag gacattgctc ggcaaaagag cagcttggag  
 180  
 gccacccgtg agatggtgac ccgattcatg gagacagcag acagtactac agcagcagtg  
 240  
 ctgcagggca aactggcaga ggtgagccag cggttcgaac agctctgtct acagcagcaa  
 300  
 gaaaaggaga gctccctaaa gaagcttcta ccccaggcag agatgtttga acacctctct  
 360  
 ggtaagctgc agcagttcat ggaaaacaaa agtcggatgc tggcctctgg aaatcagcca  
 420  
 gatcaagata ttacacattt cttccaacag atccaggagc tcaatttgga aatggaagac  
 480  
 caacaggaga acctagatac tcttgagcac ctggtcactg aactgagctc ttgtggcttt  
 540  
 gcgctggact tgtgccagca tcaggacagg gtacagaatc taagaaaaga cttcacagag  
 600  
 ctacagaaga cagttaaaga gagagagaaa gatgcatcat cttgccagga acagttggat  
 660  
 gaattccgg  
 669

<210> 214  
 <211> 223  
 <212> PRT  
 <213> Homo sapiens

<400> 214  
 Ile Ala Gln Ser Gln Ser Val Gln Glu Ser Leu Glu Ser Leu Leu Gln  
 1 5 10 15  
 Ser Ile Gly Glu Val Glu Gln Asn Leu Glu Gly Lys Gln Val Ser Ser  
 20 25 30  
 Leu Ser Ser Gly Val Ile Gln Glu Ala Leu Ala Thr Asn Met Lys Leu  
 35 40 45  
 Lys Gln Asp Ile Ala Arg Gln Lys Ser Ser Leu Glu Ala Thr Arg Glu  
 50 55 60  
 Met Val Thr Arg Phe Met Glu Thr Ala Asp Ser Thr Thr Ala Ala Val  
 65 70 75 80  
 Leu Gln Gly Lys Leu Ala Glu Val Ser Gln Arg Phe Glu Gln Leu Cys  
 85 90 95  
 Leu Gln Gln Gln Glu Lys Glu Ser Ser Leu Lys Lys Leu Leu Pro Gln  
 100 105 110  
 Ala Glu Met Phe Glu His Leu Ser Gly Lys Leu Gln Gln Phe Met Glu  
 115 120 125  
 Asn Lys Ser Arg Met Leu Ala Ser Gly Asn Gln Pro Asp Gln Asp Ile  
 130 135 140  
 Thr His Phe Phe Gln Gln Ile Gln Glu Leu Asn Leu Glu Met Glu Asp  
 145 150 155 160  
 Gln Gln Glu Asn Leu Asp Thr Leu Glu His Leu Val Thr Glu Leu Ser  
 165 170 175  
 Ser Cys Gly Phe Ala Leu Asp Leu Cys Gln His Gln Asp Arg Val Gln  
 180 185 190  
 Asn Leu Arg Lys Asp Phe Thr Glu Leu Gln Lys Thr Val Lys Glu Arg

WO 00/58473

195 200 205  
Glu Lys Asp Ala Ser Ser Cys Gln Glu Gln Leu Asp Glu Phe Arg  
210 215 220

<210> 215  
<211> 814  
<212> DNA  
<213> Homo sapiens

<400> 215  
aaatttcgta cccgctccgg cacagtacga gcccttgacg atgtgagcct ggctattaag  
60  
agaggttcca tctcagccgt tatcgggcac tccggagccg gcaaattccac cctgggtcgc  
120  
ctcatcaacg gattagagac tcccacgcgt ggccgcgtct tggtagacgg caccgacgtc  
180  
tcgcagctct cggacaaagc gatgcgcccg ctacgcgcag acatcgggat gatcttccaa  
240  
cagttcaacc tattcggctc aaggaccatc tacgacaacg ttgcctatcc actcaagctg  
300  
gctcattgga agaaagcaga cgagaagaag cgcgtcaccg aattgctgag cttcgtcggg  
360  
ttgacgagca aagcctggga ccatccagac cagctctcgg gcggacagaa acagcgggtt  
420  
ggtattgccc gagcgctagc aactaaacca tcgattttgt tggctgacga gtccacctcg  
480  
gcgctggatc cagaaacgac agctgatgtc ctatccctgc tcaagcgggt caatgcggaa  
540  
ctaggggtga cggtcgtcgt catcaccac gagatggagg tcgtccgctc gattgcccag  
600  
caggtctcgg tactagcagc tggccatctc gtcgagtctg gaagcggccc ccaggtcttc  
660  
gctcatccac agtcagagac caccacgcgt ttcttggcga cgattatcgg ccagcaccgc  
720  
agtggggagg aacaggcacg gttgcagtcg gaaaaccag atgcacgact cgtcgacgtc  
780  
agttcgggtg ccagtcactc gttcgggtgac gcgt  
814

<210> 216  
<211> 271  
<212> PRT  
<213> Homo sapiens

<400> 216  
Lys Phe Arg Thr Arg Ser Gly Thr Val Arg Ala Leu Asp Asp Val Ser  
1 5 10 15  
Leu Ala Ile Lys Arg Gly Ser Ile Ser Ala Val Ile Gly His Ser Gly  
20 25 30  
Ala Gly Lys Ser Thr Leu Val Arg Leu Ile Asn Gly Leu Glu Thr Pro  
35 40 45  
Thr Arg Gly Arg Val Leu Val Asp Gly Thr Asp Val Ser Gln Leu Ser  
50 55 60  
Asp Lys Ala Met Arg Pro Leu Arg Ala Asp Ile Gly Met Ile Phe Gln

65					70					75				80
Gln	Phe	Asn	Leu	Phe	Gly	Ser	Arg	Thr	Ile	Tyr	Asp	Asn	Val	Ala Tyr
				85					90					95
Pro	Leu	Lys	Leu	Ala	His	Trp	Lys	Lys	Ala	Asp	Glu	Lys	Lys	Arg Val
			100				105						110	
Thr	Glu	Leu	Leu	Ser	Phe	Val	Gly	Leu	Thr	Ser	Lys	Ala	Trp	Asp His
		115					120					125		
Pro	Asp	Gln	Leu	Ser	Gly	Gly	Gln	Lys	Gln	Arg	Val	Gly	Ile	Ala Arg
	130					135					140			
Ala	Leu	Ala	Thr	Lys	Pro	Ser	Ile	Leu	Leu	Ala	Asp	Glu	Ser	Thr Ser
145				150						155				160
Ala	Leu	Asp	Pro	Glu	Thr	Thr	Ala	Asp	Val	Leu	Ser	Leu	Leu	Lys Arg
			165						170					175
Val	Asn	Ala	Glu	Leu	Gly	Val	Thr	Val	Val	Val	Ile	Thr	His	Glu Met
		180						185					190	
Glu	Val	Val	Arg	Ser	Ile	Ala	Gln	Gln	Val	Ser	Val	Leu	Ala	Ala Gly
	195						200					205		
His	Leu	Val	Glu	Ser	Gly	Ser	Ala	Arg	Gln	Val	Phe	Ala	His	Pro Gln
	210					215					220			
Ser	Glu	Thr	Thr	Gln	Arg	Phe	Leu	Ala	Thr	Ile	Ile	Gly	Gln	His Pro
225				230						235				240
Ser	Gly	Glu	Glu	Gln	Ala	Arg	Leu	Gln	Ser	Glu	Asn	Pro	Asp	Ala Arg
			245					250					255	
Leu	Val	Asp	Val	Ser	Ser	Val	Ala	Ser	His	Ser	Phe	Gly	Asp	Ala
		260						265					270	

<210> 217  
 <211> 500  
 <212> DNA  
 <213> Homo sapiens

<400> 217  
 nnacgcgtcg cgatgaaaga ggcgctgaaa ggtgccatcc agattccaac agtgactttt  
 60  
 agctctgaga agtccaatac tacagccctg gctgagttcg gaaaatacat tcataaagtc  
 120  
 tttcctacag tggtcagcac cagctttatc cagcatgaag tcgtggaaga gtatagccac  
 180  
 ctgttcacta tccaaggctc ggaccccagc ttgcagccct acctgctgat ggctcacttt  
 240  
 gatgtggtgc ctgcccctga agaaggctgg gaggtgcccc cattctcttg gttggagcgt  
 300  
 gatggcgtca tctatggttg gggcacactg gacgacaaga actctgtgat ggcattactg  
 360  
 caggccttgg agctcctgct gatcaggaag tacatcccc gaagatcttt cttcattttt  
 420  
 ctgggccatg atgaggagtc atcagggaca ggggctcaga ggatctcagc cctgctacag  
 480  
 tcaaggggcg tccagctagc  
 500

<210> 218  
 <211> 166  
 <212> PRT

WO 00/58473

&lt;213&gt; Homo sapiens

<400> 218  
 Xaa Arg Val Ala Met Lys Glu Ala Leu Lys Gly Ala Ile Gln Ile Pro  
 1 5 10 15  
 Thr Val Thr Phe Ser Ser Glu Lys Ser Asn Thr Thr Ala Leu Ala Glu  
 20 25 30  
 Phe Gly Lys Tyr Ile His Lys Val Phe Pro Thr Val Val Ser Thr Ser  
 35 40 45  
 Phe Ile Gln His Glu Val Val Glu Glu Tyr Ser His Leu Phe Thr Ile  
 50 55 60  
 Gln Gly Ser Asp Pro Ser Leu Gln Pro Tyr Leu Leu Met Ala His Phe  
 65 70 75 80  
 Asp Val Val Pro Ala Pro Glu Glu Gly Trp Glu Val Pro Pro Phe Ser  
 85 90 95  
 Gly Leu Glu Arg Asp Gly Val Ile Tyr Gly Trp Gly Thr Leu Asp Asp  
 100 105 110  
 Lys Asn Ser Val Met Ala Leu Leu Gln Ala Leu Glu Leu Leu Leu Ile  
 115 120 125  
 Arg Lys Tyr Ile Pro Arg Arg Ser Phe Phe Ile Ser Leu Gly His Asp  
 130 135 140  
 Glu Glu Ser Ser Gly Thr Gly Ala Gln Arg Ile Ser Ala Leu Leu Gln  
 145 150 155 160  
 Ser Arg Gly Val Gln Leu  
 165

&lt;210&gt; 219

&lt;211&gt; 361

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<400> 219  
 acgcgttgaa acgggtatat tggggatgac gccgctgtgc aatatgcgca aggccatata  
 60  
 caagggtccgc acgctcccat gtccctcggtt ttcgacagtt cttttgcgcc gcattatggc  
 120  
 gaagccgtcg agattgcgcc tgatatcaag cgcattcacgg tcaacaaccc cagccccttc  
 180  
 acttttttcg gcaccaacag ttatctgatc ggccgcgata cgctggcatt gatcgatccc  
 240  
 ggtccgcttg acgaggccca tcacgcggcg ctgctgcgtg ccattgccgg ccggccggtc  
 300  
 agccatatct ttgtcagcca cacacaccgg gaccactcgc cagtcgcgac gggttttgaaa  
 360  
 g  
 361

&lt;210&gt; 220

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

<400> 220  
 Met Ala Asp Arg Pro Ala Gly Asn Gly Thr Gln Gln Arg Arg Val Met

```

      1             5             10             15
Gly Leu Val Lys Arg Thr Gly Ile Asp Gln Cys Gln Arg Ile Ala Ala
      20             25             30
Asp Gln Ile Thr Val Gly Ala Glu Lys Ser Glu Gly Ala Gly Val Val
      35             40             45
Asp Arg Asp Ala Leu Asp Ile Arg Arg Asn Leu Asp Gly Phe Ala Ile
      50             55             60
Met Arg Arg Lys Arg Thr Val Glu Asn Glu Gly His Gly Ser Val Arg
      65             70             75             80
Thr Leu Cys Met Ala Leu Arg Ile Leu His Ser Gly Val Ile Pro Asn
      85             90             95
Ile Pro Val Ser Thr Arg
      100

```

<210> 221  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

```

<400> 221
agatctctgt gtcgtcggct gcaaagagga tgagcccaga tgcatatcag gggctccctc
60
ccacatccca cctgctcggg cagcccacgg cagccccaca ctgctgcagc acacctcgct
120
gcagctctgg ttctctctca gaaatatccc tgccaccctg ctaagccttg gccaacactg
180
caccctgtcc caatgcggct ccagtgacca cacccccagg gcataccctc ctacagagca
240
ttccccaaaa aggctagagt agacaccagc ctgctccgta gggggcctcc accccattct
300
ccaaggcctc caccagggga cgcttggtga accagcatcc aggctgggc cacctccctg
360
ctcagagtcc atgttctgtg acaaggggtg caactgggat t
401

```

<210> 222  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

```

<400> 222
Met Asp Ser Glu Gln Gly Gly Gly Pro Gly Leu Asp Ala Gly Ser Pro
      1             5             10             15
Gly Val Pro Gly Trp Arg Pro Trp Arg Met Gly Trp Arg Pro Pro Thr
      20             25             30
Glu Gln Ala Gly Val Tyr Ser Ser Leu Phe Trp Glu Cys Ser Val Gly
      35             40             45
Gly Tyr Ala Leu Gly Val Trp Ser Leu Glu Pro His Trp Asp Arg Val
      50             55             60
Gln Cys Trp Pro Arg Leu Ser Arg Val Ala Gly Ile Phe Leu Arg Arg
      65             70             75             80
Asn Gln Ser Cys Ser Glu Val Cys Cys Ser Ser Val Gly Leu Pro Trp
      85             90             95
Ala Ala Arg Ala Gly Gly Met Trp Glu Gly Ala Pro Asp Met His Leu

```



100 105 110  
 Gly Ser Ser Ser Leu Gln Pro Thr Thr Gln Arg Ser  
 115 120

<210> 223  
 <211> 331  
 <212> DNA  
 <213> Homo sapiens

<400> 223  
 tcatgaaatc tgtgggcagt gaccaggag ggtatgggca ggcccaacca gggtggtgtg  
 60  
 cccttgaagc cccacagacc tgccagggca gcagggcagt tgggagccgg agaacctgag  
 120  
 aaccaagcca ggctgcatgc aggaggctgg cacgtgaacg ctgcaggtgt tgccggcagc  
 180  
 cgtggtgcct ggcagatagt gtccgacccc cnaggacctt cttgctgggc agcccagtcc  
 240  
 aaaagctgtt cccgcttaag ccacccccac cgccttggcc acacctggca catgggtgaa  
 300  
 gcaaggcat ttcccggggc ttctgttcc c  
 331

<210> 224  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 224  
 Met Pro Leu Leu His Pro Cys Ala Arg Cys Gly Gln Gly Gly Gly Gly  
 1 5 10 15  
 Gly Leu Ser Gly Asn Ser Phe Trp Thr Gly Leu Pro Ser Lys Lys Val  
 20 25 30  
 Leu Gly Gly Arg Thr Leu Ser Ala Arg His His Gly Cys Arg Gln His  
 35 40 45  
 Leu Gln Arg Ser Arg Ala Ser Leu Leu His Ala Ala Trp Leu Gly Ser  
 50 55 60  
 Gln Val Leu Arg Leu Pro Thr Ala Leu Leu Pro Trp Gln Val Cys Gly  
 65 70 75 80  
 Ala Ser Arg Ala His Gln Pro Gly Trp Ala Cys Pro Tyr Pro Pro Gly  
 85 90 95  
 Ser Leu Pro Thr Asp Phe Met  
 100

<210> 225  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

<400> 225  
 tgatcacggg cgtgagccac cagcccagca tcccttgcc ttcattcgca cctccacctc  
 60  
 cagaatgacc ctcattccct cctgcacaga cggtgacagc agtaactcct acaaacacca  
 120

ccagactgat cttcaagagc agaggaactc ccaatcacga ttccaccccc gccgggctct  
180  
caaatectcc agggctgcct gctatggggg agggaggcac actttgcttg gctctcaagg  
240  
cctcagccag ccgggtccaa accaactccc agcctggcct caccatccca ccgccaacc  
300  
tttgctcaca ctggcccctc ttectggaac atgggcctn  
339

<210> 226  
<211> 91  
<212> PRT  
<213> Homo sapiens

<400> 226  
Met Thr Leu Ile Pro Ser Cys Thr Asp Gly Asp Ser Ser Asn Ser Tyr  
1 5 10 15  
Lys His His Gln Thr Asp Leu Gln Glu Gln Arg Asn Ser Gln Ser Arg  
20 25 30  
Phe His Pro Arg Arg Ala Leu Lys Ser Ser Arg Ala Ala Cys Tyr Gly  
35 40 45  
Gly Gly Arg His Thr Leu Leu Gly Ser Gln Gly Leu Ser Gln Pro Gly  
50 55 60  
Pro Asn Gln Leu Pro Ala Trp Pro His His Pro Thr Ala Lys Pro Leu  
65 70 75 80  
Leu Thr Leu Ala Pro Leu Pro Gly Thr Trp Ala  
85 90

<210> 227  
<211> 353  
<212> DNA  
<213> Homo sapiens

<400> 227  
gtcgaccctc tcgattgtgg cgaactccat ggctgctgcg ggctgctgta ggctctcgag  
60  
tagctcgacg tcgggttcgc gagggctcgc agcgtggcca tgctgcttct tggatgggtc  
120  
gggcaactcc tcgggggatt cgagcagttc ttggcgcacc tgctctggcg tcatcccga  
180  
ggccaggccg acaagtgctg cctcctgcca cccgctgagc gacgctgcca tggtgagtag  
240  
ggcgtcttca ctggtcaggg cgagcgcggt atcgaccagg ttggcgtcca ggccgagaga  
300  
cagcatgtct gctcagtcgc ggtgatgact ggagtggcgg tctcctgcac ggg  
353

<210> 228  
<211> 102  
<212> PRT  
<213> Homo sapiens

<400> 228  
Met Leu Ser Leu Gly Leu Asp Ala Asn Leu Val Asp Thr Ala Leu Ala

1	5	10	15
Leu Thr Ser Glu Asp Ala Val Leu Asn Met Ala Ala Ser Leu Ser Gly			
20	25	30	
Trp Gln Glu Ala Ala Leu Val Gly Leu Ala Ser Gly Met Thr Pro Glu			
35	40	45	
Gln Val Arg Gln Glu Leu Leu Glu Ser Pro Glu Glu Leu Pro Glu Pro			
50	55	60	
Ser Lys Lys Gln His Gly His Ala Ala Ser Pro Arg Glu Pro Asp Val			
65	70	75	80
Glu Leu Leu Glu Ser Leu Arg Arg Pro Ala Ala Ala Met Glu Phe Ala			
85	90	95	
Thr Ile Glu Gly Val Asp			
100			

<210> 229  
 <211> 743  
 <212> DNA  
 <213> Homo sapiens

<400> 229  
 nnggctaggg acacggcctc ctctcaaca ggcagtgcct gtgcaggctc aggggcatca  
 60  
 tcaaagataa cacagggctg gtcaggggct gctggctgct cctgccccag gactggctcc  
 120  
 aggatgggca aggctgcctc cctggtagcc agggggagag gggaaggag caccagggag  
 180  
 tgggccagca ggtgtggcat cggccaggag gagatggagg ccagcagcag ccaagaccag  
 240  
 agtaaagtgt ctgccccagg ggtgtcaca gcccaggacc gggtagttgg aaagccagcc  
 300  
 cagcttggca ctgagcggag ccaggaggca gatgttcagg actgggagtt cagaaagagg  
 360  
 gattcccagg gcacttactc cagccgggat gcagaactcc aggaccagga attcggaaag  
 420  
 agagattcac tgggtaccta cagtagtcga gatgtaagcc ttggggactg ggaatttggg  
 480  
 aagagagatt ctctgggtgc ttatgccagc caagatgcca acgagcaggg ccaagatttg  
 540  
 gggaagaggg accaccatgg taggtacagc agccaggatg ccgatgagca ggactgggag  
 600  
 tttcagaaga gagatgtgtc actcggcacc tatggcagcc gggctgcgga gccacaggaa  
 660  
 caggagtttg ggaagagcgc ttggataagg gactacagca gtggtggcag ctccaggacc  
 720  
 cttgacgccc aggacagaag ctt  
 743

<210> 230  
 <211> 247  
 <212> PRT  
 <213> Homo sapiens

<400> 230  
 Xaa Ala Arg Asp Thr Ala Ser Ser Ser Thr Gly Ser Ala Cys Ala Gly

1                      5                      10                      15  
 Ser Gly Ala Ser Ser Lys Ile Thr Gln Gly Trp Ser Gly Ala Ala Gly  
                     20                      25                      30  
 Cys Ser Cys Pro Arg Thr Gly Ser Arg Met Gly Lys Ala Ala Ser Leu  
                     35                      40                      45  
 Val Ala Arg Gly Arg Gly Glu Gly Ser Thr Arg Glu Trp Ala Ser Arg  
                     50                      55                      60  
 Cys Gly Ile Gly Gln Glu Glu Met Glu Ala Ser Ser Ser Gln Asp Gln  
 65                      70                      75                      80  
 Ser Lys Val Ser Ala Pro Gly Val Leu Thr Ala Gln Asp Arg Val Val  
                     85                      90                      95  
 Gly Lys Pro Ala Gln Leu Gly Thr Gln Arg Ser Gln Glu Ala Asp Val  
                     100                      105                      110  
 Gln Asp Trp Glu Phe Arg Lys Arg Asp Ser Gln Gly Thr Tyr Ser Ser  
                     115                      120                      125  
 Arg Asp Ala Glu Leu Gln Asp Gln Glu Phe Gly Lys Arg Asp Ser Leu  
                     130                      135                      140  
 Gly Thr Tyr Ser Ser Arg Asp Val Ser Leu Gly Asp Trp Glu Phe Gly  
 145                      150                      155                      160  
 Lys Arg Asp Ser Leu Gly Ala Tyr Ala Ser Gln Asp Ala Asn Glu Gln  
                     165                      170                      175  
 Gly Gln Asp Leu Gly Lys Arg Asp His His Gly Arg Tyr Ser Ser Gln  
                     180                      185                      190  
 Asp Ala Asp Glu Gln Asp Trp Glu Phe Gln Lys Arg Asp Val Ser Leu  
                     195                      200                      205  
 Gly Thr Tyr Gly Ser Arg Ala Ala Glu Pro Gln Glu Gln Glu Phe Gly  
                     210                      215                      220  
 Lys Ser Ala Trp Ile Arg Asp Tyr Ser Ser Gly Gly Ser Ser Arg Thr  
 225                      230                      235                      240  
 Leu Asp Ala Gln Asp Arg Ser  
                     245

<210> 231  
 <211> 431  
 <212> DNA  
 <213> Homo sapiens

<400> 231  
 acgcgttggc caccgagagg ctggcgaggg tgtgcagcac ggcgcagtgt ggcaggggtcc  
 60  
 cagggtgcag cctgcgcagc agctcctcca tcaccttget gatgaactgt cttcccacgg  
 120  
 ccaccaggac gccactcgcc gcctgctgcc agtcccagac caggtccttc gtcttggtca  
 180  
 tctcgctgga ggccaggagg atgatgggtgc tggctgtgtc cttgtccagc tcaactggcgc  
 240  
 gactgctcag gaccctctcc atggccctca ggaccgctgc tcggtatggg tgtgccagct  
 300  
 tgtcatgctg ccgcagatac tcctcgcagg cacggagcgt ctccaccctg ctggacgcca  
 360  
 tcaccgataa ggacccctg gtgcaggagc aggtctgcag tgccctgtgc tccctcgggg  
 420  
 aggtgcggcc g  
 431

<210> 234

<211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 234  
 Met His Pro His Arg Lys Gly Ser Lys Thr Gln Asp Thr Leu Gly Ser  
 1 5 10 15  
 Pro Gly Lys His Leu Ser Lys Arg Ile Ser Leu Arg Val Arg Val Gln  
 20 25 30  
 Val Lys Ile Lys Leu Gln Val Met Leu Thr Gln Val Ala Pro Glu Thr  
 35 40 45  
 Pro Gly Glu Ala Ala Leu Trp Arg Leu Pro Leu Thr Ser Thr Pro Gln  
 50 55 60  
 Gln Val Gly Arg Glu Leu Gly Lys Ser Pro Ser Gln Leu Arg Arg Gly  
 65 70 75 80  
 Ser Glu Gln Ala Gln Arg Arg Asp Thr Leu Arg Met Gln Val Val Gln  
 85 90 95  
 Leu Arg Lys Ser Ser Leu Gln Ala Ser Trp Ala Ser  
 100 105

<210> 235  
 <211> 328  
 <212> DNA  
 <213> Homo sapiens

<400> 235  
 cgaccgttga ctattctcta caaaccacaa agacaatgat tgatttaact gaatttagaa  
 60  
 atagcaaaca cttaaaacag cagcagtaca gagctgaaaa ccagattctt ttgaaagaga  
 120  
 ttgaaagtct agaggaagaa cgacttgatc tgaaaaaaaa aattcgccaa atggctcaag  
 180  
 aaagaggaaa aagaagggca acttcaggat taaccactgg ggacctgaac ctaactgaaa  
 240  
 acatttctca aggagataga ataagtgaaa gaaaattgga tttattgagc ctcaaaaata  
 300  
 tgagtgaagc acaatcaaag aatgaatt  
 328

<210> 236  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 236  
 Met Ile Asp Leu Thr Glu Phe Arg Asn Ser Lys His Leu Lys Gln Gln  
 1 5 10 15  
 Gln Tyr Arg Ala Glu Asn Gln Ile Leu Leu Lys Glu Ile Glu Ser Leu  
 20 25 30  
 Glu Glu Glu Arg Leu Asp Leu Lys Lys Lys Ile Arg Gln Met Ala Gln  
 35 40 45  
 Glu Arg Gly Lys Arg Arg Ala Thr Ser Gly Leu Thr Thr Gly Asp Leu  
 50 55 60  
 Asn Leu Thr Glu Asn Ile Ser Gln Gly Asp Arg Il Ser Glu Arg Lys

```
<210> 237
<211> 2059
<212> DNA
<213> Homo sapiens
```

<400> 237  
ggccataagg gcacgacgca ttcctagccg atgcaccaac acgggcatga agcctgccga  
60  
gagcacgaag ccggcggtcca tagctacggc ccatacggtc atgtctgcca tggctccggt  
120  
gatgtcagac tgcacatgaa atcgggttacg gtaccccagg atcatcgcta ccgagtacac  
180  
cccgaacagc acccgctggg cgccgatcag cgtgagggag tgccccacca gtggcacttt  
240  
tcttagatag cggaacccat ccaccacatc cccagtcacc gttctcatcg tccgggaacg  
300  
atccaccagt ggcgggcccaa gctcccgaag tgaaaactgc agcccctagg cgaccgagac  
360  
tgcaagagg gctgcggaga tgcagaaaat gatcgtgtcg gcgtggtgca caggaatatg  
420  
gcggtccggca atcatgcgca ctgctgcagc aacaaccgca ccgatcatga gccctagcgg  
480  
ccaatcgttg gcatgattga cgatgccgtc aggtagtcgc gcttgtcgat ggtgtattcc  
540  
aaccagcga ccaaggcggg gagcaaaaac cggttcaggc tcatcgcgat gagcaaccca  
600  
atgagcaagg ccaggtggga gggcttatcg cgcgaccac cccagaccaa gatccccagc  
660  
ccgacccagg tgacggcacg cattcatctg cgtattgtcc cgactacacc gtgagggcgc  
720  
tctctgatct gcagctcatc aagggttacg gactgcagta cctcaatgca ctctgggcta  
780  
cccagagcca gaacctgcca cagtcacctg agaacaccga cctgcagggtt attccaggca  
840  
gccagaccag gtccttggt gagaagacca ccacagcggc agctttccca gtagcccttt  
900  
ccctctttgg cacagttgga acctccagtt gataaatgac tgtggactag cgcgcgtttt  
960  
ttgttttcag agcacacgta aggggtccagc cacagcaggc ccggcggtccc ggtggaaggc  
1020  
agccctgggc ggaacccagg cgtttaacgg ctactaggc agccccagat ctgggggaagc  
1080  
agatgagcac gtggggagct ggagtgagct gagcagaagt tttgtgcccg cctgccccca  
1140  
tccccctcag gccacgtttt agatggccct tgtagttgag ggtcctgggt gtcctcagaa  
1200  
ctagacatca atgcctggat ccttcagccg gccctgccct cctttaggag acaggagtca  
1260

ccagggcaca gccctccagg cccgcctcag gaaggaatga aaggaatgcc atcatctcta  
 1320  
 gttcccaggg cccagccttc cctttctccc ccggggcagg gacagtgcgg catattcaga  
 1380  
 ttcagacctc tttgggctga gccaccttgt gagtgcagtt actgcctttg tgtggccgtg  
 1440  
 acctctatct gtttgctttt aatttgccaa cctatcgtg ctggcagcac tttttgagca  
 1500  
 agccgagagc acccattttg gctggggatt cagatcgatg gccttgtcca tgttgcctt  
 1560  
 tctggcttcc ctgatggtgt catgtttcag cgcagtgcgc ccagcctttc ccatgtgcca  
 1620  
 aaccagaagc tccactgccc gtaggctgtc cctgtagccc tgctccctcc ctggaggctg  
 1680  
 ctcttctgat tctgagagct ggcctagtgg tgctgagggc ccctttctgc ttctctgccc  
 1740  
 acctgctgag ttgccactcg cagtgttgtc agttcccgtg ttctgagaag aggtcatgcc  
 1800  
 tgggaggaag ggatcgatc gctgcatcga atcctctctc cgcctgtgtg cccccaggag  
 1860  
 agtagctgcc tgttgcacct gctccacacc tccccacagc ctccctgcag gtgctgtgtg  
 1920  
 gccgtgatgt gcagagagca gtgagggagg gttcatgaac caggtggatc ctctttaaaa  
 1980  
 aaaaaaaaaag tttttgttat atctctaaaa tcccatagct aggaacagaa aaaaaggaaa  
 2040  
 agacttgaaa tgttctaga  
 2059

<210> 238  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

<400> 238  
 Ala Glu Gln Lys Phe Cys Ala Arg Leu Pro Pro Ser Pro Pro Gly His  
 1 5 10 15  
 Val Leu Asp Gly Pro Cys Ser Cys Gly Ser Trp Val Ser Ser Glu Leu  
 20 25 30  
 Asp Ile Asn Ala Trp Ile Leu Gln Pro Ala Leu Pro Ser Phe Arg Arg  
 35 40 45  
 Gln Glu Ser Pro Gly His Ser Pro Pro Gly Pro Pro Gln Glu Gly Met  
 50 55 60  
 Lys Gly Met Pro Ser Ser Leu Val Pro Arg Ala Gln Pro Ser Pro Ser  
 65 70 75 80  
 Pro Pro Gly Gln Gly Gln Cys Gly Ile Phe Arg Phe Arg Pro Leu Trp  
 85 90 95  
 Ala Glu Pro Pro Cys Glu Cys Ser Tyr Cys Leu Cys Val Ala Val Thr  
 100 105 110  
 Ser Ile Cys Leu Leu Leu Ile Cys Gln Pro Ile Ala Ala Gly Ser Thr  
 115 120 125  
 Phe



<210> 239  
 <211> 388  
 <212> DNA  
 <213> Homo sapiens

<400> 239  
 ntctagatca ctctgtagcg catgggttaa tgctgacaca atagaaaagt gcgaggacat  
 60  
 cctcgaatta atgagatggg ggactggatg agtcaagttc tcgtcgttgc ggcggctgtc  
 120  
 ggtcagctgc ccctcctcca cttctgcttc tcggcggtac ccataaccgt attggccgcg  
 180  
 tggtcacctt tgaatgcagc catgtcgtcg tctccgtatc gaaatgatgt gccatcgaag  
 240  
 atgccgacct cagcatcggc atctgcagtg atgagtgcgt atcgcgccac acgaaacgcc  
 300  
 cagcgcaacc gtgtcctcgc acgatacgaa gtgcttgggt atctcagctc tggtagctat  
 360  
 ggtcgtgtat ataaagcaaa ggaacttn  
 388

<210> 240  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 240  
 Met Val Asp Trp Met Ser Gln Val Leu Val Val Ala Ala Ala Val Gly  
 1 5 10 15  
 Gln Leu Pro Leu Leu His Phe Cys Phe Ser Ala Leu Pro His Thr Val  
 20 25 30  
 Leu Ala Ala Cys Ser Pro Leu Asn Ala Ala Met Ser Ser Ser Pro Tyr  
 35 40 45  
 Arg Asn Asp Val Pro Ser Lys Met Pro Thr Ser Ala Ser Ala Ser Ala  
 50 55 60  
 Val Met Ser Ala Tyr Arg Ala Thr Arg Asn Ala Gln Arg Asn Arg Val  
 65 70 75 80  
 Leu Ala Arg Tyr Glu Val Leu Gly Tyr Leu Ser Ser Gly Thr Tyr Gly  
 85 90 95  
 Arg Val Tyr Lys Ala Lys Glu Leu  
 100

<210> 241  
 <211> 330  
 <212> DNA  
 <213> Homo sapiens

<400> 241  
 ncggggggcc gagttgaaag ctgccggcac actggctgtg ctgcttgctt cacttctcgg  
 60  
 gatgctgctt ccagggcggg cctgggggaa acatcggcct tcccaggcac ccttagcccg  
 120  
 tcccatctgg gggcccttag cacagtcctt gggacccac atgctgcctt tcaggctgat  
 180

gtgggcaaac tcggcagccc agcctactcc cgggccatgg gccaccatct cagcttcctt  
240  
ggggctaagc cgtgtgctct gaatcaaaag cagtagtggc atcggcggca ctggcgccat  
300  
gggaaacggg ttgacttgca caaccagcac  
330

<210> 242  
<211> 100  
<212> PRT  
<213> Homo sapiens

<400> 242  
Met Ala Pro Val Pro Pro Met Pro Leu Leu Leu Leu Ile Gln Ser Thr  
1 5 10 15  
Arg Leu Ser Pro Arg Glu Ala Glu Met Val Ala His Gly Pro Gly Val  
20 25 30  
Gly Trp Ala Ala Glu Phe Ala His Ile Ser Leu Lys Gly Ser Met Trp  
35 40 45  
Gly Pro Arg Asp Cys Ala Lys Gly Pro Gln Met Gly Arg Ala Lys Gly  
50 55 60  
Ala Trp Glu Gly Arg Cys Phe Pro Gln Ala Arg Pro Gly Ser Ser Ile  
65 70 75 80  
Pro Arg Ser Glu Ala Ser Ser Thr Ala Ser Val Pro Ala Ala Phe Asn  
85 90 95  
Ser Ala Pro Arg  
100

<210> 243  
<211> 330  
<212> DNA  
<213> Homo sapiens

<400> 243  
nnaccttctc tccgcgttat taccaaagat gctatgcacg taactgcgga ggaaattctt  
60  
cacacaggcc accccgcccc cactgcgctc gtcgctaate ttccctataa cggtgcggta  
120  
cccgtactgc tacacatgct agatattctc ccctccttgc ggactacagt ggtgatgggtg  
180  
caggcagaag tagccgacgc attggctgcc acaccaggca gccgcattta cggtgtcccc  
240  
agcgtcaaag tcaactttta cgggactgtc tcgcgtgcgg gagcaattgg acgcaatgtc  
300  
ttctggccgg ctcccaatgt tgattctggn  
330

<210> 244  
<211> 110  
<212> PRT  
<213> Homo sapiens

<400> 244  
Xaa Pro Ser Leu Arg Val Ile Thr Lys Asp Ala Met His Val Thr Ala

```

      1                    5                    10                    15
Glu Glu Ile Leu His Thr Gly His Pro Ala Pro Thr Ala Leu Val Ala
      20                    25                    30
Asn Leu Pro Tyr Asn Val Ala Val Pro Val Leu Leu His Met Leu Asp
      35                    40                    45
Ile Leu Pro Ser Leu Arg Thr Thr Val Val Met Val Gln Ala Glu Val
      50                    55                    60
Ala Asp Arg Leu Ala Ala Thr Pro Gly Ser Arg Ile Tyr Gly Val Pro
      65                    70                    75                    80
Ser Val Lys Val Asn Phe Tyr Gly Thr Val Ser Arg Ala Gly Ala Ile
      85                    90                    95
Gly Arg Asn Val Phe Trp Pro Ala Pro Asn Val Asp Ser Gly
      100                    105                    110

```

<210> 245  
 <211> 355  
 <212> DNA  
 <213> Homo sapiens

```

<400> 245
tctagatcct gaatcaccca cctcctagtt tcggattcac ctccgccggc gtcacctgaa
60
aacaatgtcg agcccgaatg gatgatggta gccacaccca tctcggaaag gtggaatgca
120
gcgtgttgca gaaacagaag ttgaccgtcg gaggtaggcg gcattcgctt cggatcgaag
180
cgtcccgagg catccatctc gagttgacga cgaaaatctt tccagtccac gccgtagggg
240
ganttggcaa ccacagcatc gaatttgtcc agaaggaagt ggtcgttggt gagggatttg
300
ccccattcaa tacgcgcatc ttcccgggaag cgcgcctcta ttgcggccaa cgcgt
355

```

<210> 246  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

```

<400> 246
Met Arg Val Leu Asn Gly Ala Ile Pro Ser Pro Thr Thr Thr Ser Phe
      1                    5                    10                    15
Trp Thr Asn Ser Met Leu Trp Leu Pro Xaa Pro Pro Thr Ala Trp Thr
      20                    25                    30
Gly Lys Ile Phe Val Val Asn Ser Arg Trp Met Pro Arg Asp Ala Ser
      35                    40                    45
Ile Arg Ser Glu Cys Arg Leu Pro Pro Thr Val Asn Phe Cys Phe Cys
      50                    55                    60
Asn Thr Leu His Ser Thr Phe Pro Arg Trp Val Trp Leu Pro Ser Ser
      65                    70                    75                    80
Ile Arg Ala Arg His Cys Phe Gln Val Thr Pro Ala Glu Val Asn Pro
      85                    90                    95
Lys Leu Gly Gly Gly
      100

```

<210> 247  
 <211> 333  
 <212> DNA  
 <213> Homo sapiens

<400> 247  
 atggccgcga atgggcaccg tgtcatggtc gtctctcccc gctacgacca gtacaaggac  
 60  
 gcctgggaca ccagcgtcgt gtccgagatc aagatgggag acaggtacga gacggtcagg  
 120  
 ttcttccact gctacaagcg cggagtggac cgcgtgttcg ttgaccaccc actgttcctg  
 180  
 gagagggttt ggggaaagac cgaggagaag atctacgggc ctgacgctgg aacggactac  
 240  
 agggacaacc agctgcgggt cagcctgcta tgccaggcag cacttgaagc tccaaggatc  
 300  
 ctgagcctca acaacaaccc atacttctcc gga  
 333

<210> 248  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 248  
 Met Ala Ala Asn Gly His Arg Val Met Val Val Ser Pro Arg Tyr Asp  
 1 5 10 15  
 Gln Tyr Lys Asp Ala Trp Asp Thr Ser Val Val Ser Glu Ile Lys Met  
 20 25 30  
 Gly Asp Arg Tyr Glu Thr Val Arg Phe Phe His Cys Tyr Lys Arg Gly  
 35 40 45  
 Val Asp Arg Val Phe Val Asp His Pro Leu Phe Leu Glu Arg Val Trp  
 50 55 60  
 Gly Lys Thr Glu Glu Lys Ile Tyr Gly Pro Asp Ala Gly Thr Asp Tyr  
 65 70 75 80  
 Arg Asp Asn Gln Leu Arg Phe Ser Leu Leu Cys Gln Ala Ala Leu Glu  
 85 90 95  
 Ala Pro Arg Ile Leu Ser Leu Asn Asn Asn Pro Tyr Phe Ser Gly  
 100 105 110

<210> 249  
 <211> 5503  
 <212> DNA  
 <213> Homo sapiens

<400> 249  
 atgaccagg ggattttggc cttggtcacg tccactggct gtgcatctgc caatgccctg  
 60  
 cagtcctca cggatgccat gcacatccca cacctctttg tccagcgcaa cccgggaggg  
 120  
 tcgccacgca ccgcatgcc cctgaacccc agccccgatg gtgaggccta cacactggct  
 180  
 tcgagaccac ccgtccgcct caatgatgtc atgctcaggc tggtgacgga gctgcgctgg  
 240

cagaagttcg tcatgttcta cgacagcgag tatgatatcc gtgggcttca aagctttctg  
300  
gaccaggcct cgcggctggg ccttgacgtc tctttacaaa aggtggacaa gaacattagc  
360  
cacgtattca ccagcctggt caccacgatg aagacagagg agctgaatcg ctaccgggac  
420  
acgcttcgcc gcgccatcct gctgctcagc ccacagggag cccactcctt catcaacgag  
480  
gccgtggaga ccaacctggc ttccaaggac agccactggg tctttgtgaa tgaggaaatc  
540  
agtgaccggg agatcctgga tctgggtccat agtgcccttg gaaggatgac cgtgggtccgg  
600  
caaattcttc cgtctgcaaa ggacaatcag aaatgcacga ggaacaacca ccgcattctc  
660  
tccctgctct gcgaccccca ggaaggctac ctccagatgc tgcagatctc caacctctat  
720  
ctgtatgaca gtgttctgat gctggccaac gcctttcaca ggaagctgga ggaccggaag  
780  
tggcatagca tggcgagcct caactgcata cggaaatcca ctaagccatg gaatggtggg  
840  
aggtccatgc tggataccat caaaaagggc cacatcactg gcctcactgg ggtgatggag  
900  
tttcgggagg acagttcgaa tccctatgtc cagtttgaaa tccttggcac tacctatagt  
960  
gagacttttg gcaaagacat gcgcaagttg gcgacatggg actcagagaa gggcttgaat  
1020  
ggcagcttgc aagagaggcc catgggcagc cgcctccaag gattgactct taaagtgggt  
1080  
actgtcttgg aagagccttt cgtgatgggt gctgagaaca tcctaggaca gccaagcgc  
1140  
tacaaagggt tctccataga tgtcctggat gcactggcca aggctctggg ctttaaatat  
1200  
gagatttacc aagccctga tggcaggtag ggtcaccagc tccataacac ctcttggaac  
1260  
gggatgatcg gggagctcat cagcaagaga gcagacttgg ccatctctgc catcaccatc  
1320  
acccagaga gggagagcgt tgtggacttc agcaagcggg acatggacta ttcagtgggg  
1380  
attctaatta agaagcccga ggagaaaatc agcatcttct cctcttttgc tccatttgat  
1440  
ttcgctgtgt gggcctgcat tgcagcagcc atccctgtgg ttggtgtgct gatatttgtg  
1500  
ttgaacagga tacaggctgt gagggctcag agtgctgccc agcccaggcc gtcagcttct  
1560  
gccactctgc acagcgccat ctggattgtc tatggagcct tcgtacagca aggtggcgaa  
1620  
tcttccgtga actccatggc catgcgcatc gtgatgggca gctgggtggct cttcacgctc  
1680  
attgtgtgct cctcctacac agccaacctt gctgccttcc tcacagtgtc caggatggac  
1740  
aaccataa ggactttcca ggacctgtcc aaacaagtgg aaatgtctta tggcactgtc  
1800  
cgggattctg ctgtatatga gtacttccga gccaaaggga ccaacccctt ggagcaggac  
1860

agcacgtttg ctgaactctg gcggaccatc agcaagaacg gaggggctga caactgcgtg  
1920  
tccagtcctt cagaaggcat caggaaggca aagaagggga actacgcctt cctgtgggat  
1980  
gtggccgtgg tggaatacgc agccctgacg gatgacgact gctcggtgac tgtcatcggc  
2040  
aacagcatca gcagcaaggg ttacgggatt gccctgcagc atggcagccc ctacagggac  
2100  
ctcttctccc agaggatcct ggagctgcag gacacagggg acctggatgt gctgaagcag  
2160  
aagtgggtggc cgcacatggg ccgctgtgac ctcaccagcc atgccagcgc ccaggccgac  
2220  
ggcaaattccc tcaagctgca cagcttcgcc ggggtcttct gcatcctggc cattggcctg  
2280  
ctcctggcct gcctgggtggc tgccctggag ttgtgggtgga acagcaaccg gtgccaccag  
2340  
gagaccccca aggaggacaa agaagtgaac ttggagcagg tccaccggcg catgaacagc  
2400  
ctcatggatg aagacattgc tcacaagcag atttccccag cgtcgattga gctctcggcc  
2460  
ctggagatgg ggggcctggc tcccaccag accttgagc cgacacggga gtaccagaac  
2520  
accagctct cggtcagcac ctttctgcca gagcagagca gccatggcac cagccggaca  
2580  
cttcatcag ggcccagcag caacctgccg ctgccgctga gcagctcggc gaccatgcc  
2640  
tccatgcagt gcaaacacag gtcacccaac ggggggctgt tccggcagag cccgggtgaag  
2700  
accccatcc ccatgtcctt ccagcccgtg cctggaggcg tccttccaga ggctctggac  
2760  
acctcccacg ggacctccat ctgactgcgc cgcctgccct cctgcccacc ctcccacca  
2820  
cccgaccagc agagcttttt aatacaagaa aacaacaaca caaaccacac aactcgcac  
2880  
acacacacat acacagagac tctttcattt ttcttgtaca tatgtgtaaa taatgacaga  
2940  
atggagtggg gtaaaagtgt attttgaata ttcccaattt tcgaagtcag taaaaaaca  
3000  
caaaaactgt atgaatgact ttgtaaattt tgttctatat gaataaaaag gcaaattact  
3060  
tgtgatcatt ctgaagtgcc aaaggagccc cccattcct gggcctttct gagggcagga  
3120  
ggggcgacca gataaggagc ccctctctgc tgggggagaa ggaagacga ggaacccac  
3180  
atgccactcg ctgccttgtc ccacagcttg ctgccccatt tctttgctcc tggcacctcg  
3240  
tcccttttag tccctcagct tgataaagag tgagtttgga gcccgcattg ggctggccca  
3300  
ctgggttgct gtgctgtagg gtgatcggct gttctgggta gcctggggct gaggaggtgc  
3360  
cctggactca gggctatcct gtcctgtctt ggatcttgcg ggacgagtta gtcaccgctg  
3420  
tgtgtgttgc agtgtgcctc tgcccatgg gcccgagaga agctgacaat taccatagt  
3480

gaggtaattg agggctttga tactgagctg ttctcatatc atactgttgg ccttgttttt  
3540  
cattttcttt tcaaaattag aagaatcaaa aagtgataga atattggggg aaggagggca  
3600  
gactccatcg tttcctcagg gagactgggc ggaggtgggg ttggtctgga agaaggtcca  
3660  
tgggggcagg gagttgagag gtgggggttag ttgcatggac caggtgaggt ggtggaacaa  
3720  
aaggccaggt agaggaagaa tattcccttg ggtttggacc catggtccca ggtgagagaa  
3780  
ggaagtgagg ccatagatgc agggagtaga agctttgtgg tgtcaggcaa acggactctg  
3840  
ttagtaagag ttgggggagg tgcccagggt ggtggaccag tactccaggt gatggggcat  
3900  
gctgagaaat agagaaaaga gaccatgttt atttgggtag gaggaagcct tgccttgccg  
3960  
cttaggtgag aagcataagt gtaactccca tccaccaggg aagttgcttg tagcccaaaa  
4020  
agtaaaggcc tatctctggg tcataaatcc tgcaggcagt ccaacaaaca gggctggctc  
4080  
cagcacaac tctcccttcc acctttacga ccctctccag accagacctg gagtcctctt  
4140  
caagcagcaa tccaaccag agcaggggccc ctccccactc aggcattctga taacctctga  
4200  
gatttccagg cctatccctg tgcaggtaga gctgcaggga agcccagttt tctaagccta  
4260  
ggaccaccta acagcgcccc ctcttccagt tgccctttct gaggcaacta aactacagaa  
4320  
tcagggaag aaccattagg agtggaactg ggggaatctg agttgtgtca cttcagttcc  
4380  
tctcctaaag acaaagggtta gtctgatctc cagaccgctc agaatggaat acacagccca  
4440  
catctgtcac tgaaggaggt ggagctccca cagccagcag taatcaggga gctgagagcc  
4500  
tggttctgtg atcatggaga aatacaaagt cctattgatt gcttcttcta tagccttgta  
4560  
gagtttctag agagatgtat ttatgagggt gataactagc ccaggattga tttctttcct  
4620  
aaagtcccta gtgacatgat tgagcagtaa agaacggcca aatcacacag tcagctaaaa  
4680  
gcactgtggg gaagagagtg ttataatta tgttatattat tgctggatgc tgagaatggt  
4740  
ctgatattcg tgctacctag gcaatccatt gacatttctc caatcagagc atgtggacct  
4800  
tgagaccagg catgctcaga gaagcctagg tgggctacca tgaccccgag gaagagcagg  
4860  
ctttgttttc catcagcacg ttggggggccc tgccctgaat ggtcaatttt tcacatatat  
4920  
atctctctat ttttttaatc aaactctggt ctactgcct tatctcacac caactctggt  
4980  
tcctcattgc cccctgagat ggctgtctt ctgggggtata gcttggatgt cttcttggat  
5040  
ggttctgctt agaatgagtg tcaaggagga aagagaggga gatggaggat gtgtttgtgc  
5100

gcctgtgtgt gtgtgtttgt gtgtgtgtgt gtgtgtgaga gagagagaga gagagagaga  
 5160  
 gaccagcatc ttcaagagaa gtattctgct tatacaaaat ccttaacacc tcatgggtgtt  
 5220  
 attcttcacc atgtttatat atatatatat atattttttt ttttttttag aattttctac  
 5280  
 ccttggcatg aggggaaatg attgatattc aagcaagttc tctaggaaaa aaaaaaaact  
 5340  
 tcccaactca gatttctgtg tcagctcaga atgtatcttt ttttcatgct ttgctctttg  
 5400  
 gatttataac tctgtttaga ctattccata cattttaggt atattttgtg ccttcagaca  
 5460  
 ctgcaaataa taatcagcat ttggattaataa gttgtttaat aat  
 5503

<210> 250  
 <211> 927  
 <212> PRT  
 <213> Homo sapiens

<400> 250  
 Met Thr Gln Gly Ile Leu Ala Leu Val Thr Ser Thr Gly Cys Ala Ser  
 1 5 10 15  
 Ala Asn Ala Leu Gln Ser Leu Thr Asp Ala Met His Ile Pro His Leu  
 20 25 30  
 Phe Val Gln Arg Asn Pro Gly Gly Ser Pro Arg Thr Ala Cys His Leu  
 35 40 45  
 Asn Pro Ser Pro Asp Gly Glu Ala Tyr Thr Leu Ala Ser Arg Pro Pro  
 50 55 60  
 Val Arg Leu Asn Asp Val Met Leu Arg Leu Val Thr Glu Leu Arg Trp  
 65 70 75 80  
 Gln Lys Phe Val Met Phe Tyr Asp Ser Glu Tyr Asp Ile Arg Gly Leu  
 85 90 95  
 Gln Ser Phe Leu Asp Gln Ala Ser Arg Leu Gly Leu Asp Val Ser Leu  
 100 105 110  
 Gln Lys Val Asp Lys Asn Ile Ser His Val Phe Thr Ser Leu Phe Thr  
 115 120 125  
 Thr Met Lys Thr Glu Glu Leu Asn Arg Tyr Arg Asp Thr Leu Arg Arg  
 130 135 140  
 Ala Ile Leu Leu Leu Ser Pro Gln Gly Ala His Ser Phe Ile Asn Glu  
 145 150 155 160  
 Ala Val Glu Thr Asn Leu Ala Ser Lys Asp Ser His Trp Val Phe Val  
 165 170 175  
 Asn Glu Glu Ile Ser Asp Pro Glu Ile Leu Asp Leu Val His Ser Ala  
 180 185 190  
 Leu Gly Arg Met Thr Val Val Arg Gln Ile Phe Pro Ser Ala Lys Asp  
 195 200 205  
 Asn Gln Lys Cys Thr Arg Asn Asn His Arg Ile Ser Ser Leu Leu Cys  
 210 215 220  
 Asp Pro Gln Glu Gly Tyr Leu Gln Met Leu Gln Ile Ser Asn Leu Tyr  
 225 230 235 240  
 Leu Tyr Asp Ser Val Leu Met Leu Ala Asn Ala Phe His Arg Lys Leu  
 245 250 255  
 Glu Asp Arg Lys Trp His Ser Met Ala Ser Leu Asn Cys Ile Arg Lys



260 265 270  
 Ser Thr Lys Pro Trp Asn Gly Gly Arg Ser Met Leu Asp Thr Ile Lys  
 275 280 285  
 Lys Gly His Ile Thr Gly Leu Thr Gly Val Met Glu Phe Arg Glu Asp  
 290 295 300  
 Ser Ser Asn Pro Tyr Val Gln Phe Glu Ile Leu Gly Thr Thr Tyr Ser  
 305 310 315 320  
 Glu Thr Phe Gly Lys Asp Met Arg Lys Leu Ala Thr Trp Asp Ser Glu  
 325 330 335  
 Lys Gly Leu Asn Gly Ser Leu Gln Glu Arg Pro Met Gly Ser Arg Leu  
 340 345 350  
 Gln Gly Leu Thr Leu Lys Val Val Thr Val Leu Glu Glu Pro Phe Val  
 355 360 365  
 Met Val Ala Glu Asn Ile Leu Gly Gln Pro Lys Arg Tyr Lys Gly Phe  
 370 375 380  
 Ser Ile Asp Val Leu Asp Ala Leu Ala Lys Ala Leu Gly Phe Lys Tyr  
 385 390 395 400  
 Glu Ile Tyr Gln Ala Pro Asp Gly Arg Tyr Gly His Gln Leu His Asn  
 405 410 415  
 Thr Ser Trp Asn Gly Met Ile Gly Glu Leu Ile Ser Lys Arg Ala Asp  
 420 425 430  
 Leu Ala Ile Ser Ala Ile Thr Ile Thr Pro Glu Arg Glu Ser Val Val  
 435 440 445  
 Asp Phe Ser Lys Arg Tyr Met Asp Tyr Ser Val Gly Ile Leu Ile Lys  
 450 455 460  
 Lys Pro Glu Glu Lys Ile Ser Ile Phe Ser Leu Phe Ala Pro Phe Asp  
 465 470 475 480  
 Phe Ala Val Trp Ala Cys Ile Ala Ala Ala Ile Pro Val Val Gly Val  
 485 490 495  
 Leu Ile Phe Val Leu Asn Arg Ile Gln Ala Val Arg Ala Gln Ser Ala  
 500 505 510  
 Ala Gln Pro Arg Pro Ser Ala Ser Ala Thr Leu His Ser Ala Ile Trp  
 515 520 525  
 Ile Val Tyr Gly Ala Phe Val Gln Gln Gly Gly Glu Ser Ser Val Asn  
 530 535 540  
 Ser Met Ala Met Arg Ile Val Met Gly Ser Trp Trp Leu Phe Thr Leu  
 545 550 555 560  
 Ile Val Cys Ser Ser Tyr Thr Ala Asn Leu Ala Ala Phe Leu Thr Val  
 565 570 575  
 Ser Arg Met Asp Asn Pro Ile Arg Thr Phe Gln Asp Leu Ser Lys Gln  
 580 585 590  
 Val Glu Met Ser Tyr Gly Thr Val Arg Asp Ser Ala Val Tyr Glu Tyr  
 595 600 605  
 Phe Arg Ala Lys Gly Thr Asn Pro Leu Glu Gln Asp Ser Thr Phe Ala  
 610 615 620  
 Glu Leu Trp Arg Thr Ile Ser Lys Asn Gly Gly Ala Asp Asn Cys Val  
 625 630 635 640  
 Ser Ser Pro Ser Glu Gly Ile Arg Lys Ala Lys Lys Gly Asn Tyr Ala  
 645 650 655  
 Phe Leu Trp Asp Val Ala Val Val Glu Tyr Ala Ala Leu Thr Asp Asp  
 660 665 670  
 Asp Cys Ser Val Thr Val Ile Gly Asn Ser Ile Ser Ser Lys Gly Tyr  
 675 680 685  
 Gly Ile Ala Leu Gln His Gly Ser Pro Tyr Arg Asp Leu Phe Ser Gln

690	695	700
Arg Ile Leu Glu Leu Gln Asp Thr Gly Asp Leu Asp Val Leu Lys Gln		
705	710	715
Lys Trp Trp Pro His Met Gly Arg Cys Asp Leu Thr Ser His Ala Ser		720
	725	730
Ala Gln Ala Asp Gly Lys Ser Leu Lys Leu His Ser Phe Ala Gly Val		735
	740	745
Phe Cys Ile Leu Ala Ile Gly Leu Leu Leu Ala Cys Leu Val Ala Ala		750
	755	760
Leu Glu Leu Trp Trp Asn Ser Asn Arg Cys His Gln Glu Thr Pro Lys		765
	770	775
Glu Asp Lys Glu Val Asn Leu Glu Gln Val His Arg Arg Met Asn Ser		780
785	790	795
Leu Met Asp Glu Asp Ile Ala His Lys Gln Ile Ser Pro Ala Ser Ile		800
	805	810
Glu Leu Ser Ala Leu Glu Met Gly Gly Leu Ala Pro Thr Gln Thr Leu		815
	820	825
Glu Pro Thr Arg Glu Tyr Gln Asn Thr Gln Leu Ser Val Ser Thr Phe		830
	835	840
Leu Pro Glu Gln Ser Ser His Gly Thr Ser Arg Thr Leu Ser Ser Gly		845
	850	855
Pro Ser Ser Asn Leu Pro Leu Pro Leu Ser Ser Ser Ala Thr Met Pro		860
865	870	875
Ser Met Gln Cys Lys His Arg Ser Pro Asn Gly Gly Leu Phe Arg Gln		880
	885	890
Ser Pro Val Lys Thr Pro Ile Pro Met Ser Phe Gln Pro Val Pro Gly		895
	900	905
Gly Val Leu Pro Glu Ala Leu Asp Thr Ser His Gly Thr Ser Ile		910
	915	920
		925

<210> 251  
 <211> 291  
 <212> DNA  
 <213> Homo sapiens

<400> 251  
 nngatcagcc gcgggggtccg cgccctcgat tcggcggtgg agaccgagag tctgcgtgag  
 60  
 gacgtcaacg cgctcgaacg gctgcggttg gccgtgcgcg ccagcgtggt catcctcatc  
 120  
 gagtaccacc attcggtgac cctgctgctg cgggtgcgcg ggaactcacc tctggaacga  
 180  
 gaggccctcg aggcccgcg ccgtatcgat gcgaagggtc ccgctctcgt cgagagcgcc  
 240  
 atcgccgagg gtggtctgcg ctcggttttc actcccgggc tcatcacgcg t  
 291

<210> 252  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 252  
 Xaa Ile Ser Arg Gly Val Arg Ala Leu Asp Ser Ala Val Glu Thr Glu

1 5 10 15  
 Ser Leu Arg Glu Asp Val Asn Ala Leu Glu Arg Leu Arg Leu Ala Val  
 20 25 30  
 Arg Ala Ser Val Val Ile Leu Ile Glu Tyr His His Ser Val Thr Leu  
 35 40 45  
 Leu Leu Arg Val Arg Gly Asn Ser Pro Leu Glu Arg Glu Ala Leu Glu  
 50 55 60  
 Ala Arg Arg Arg Ile Asp Ala Lys Val Pro Ala Leu Val Glu Ser Ala  
 65 70 75 80  
 Ile Ala Glu Gly Gly Leu Arg Ser Asp Phe Thr Pro Gly Leu Ile Thr  
 85 90 95  
 Arg

<210> 253  
 <211> 327  
 <212> DNA  
 <213> Homo sapiens

<400> 253  
 gtgcacggat gggagcgctc gcgcgcgtgc tgggtgccttc acagcccggc gagcggcgtg  
 60  
 cgctcacggg cctgtaccga ccgatctcgc aaccttccgc agaccgatcc accaaccgcg  
 120  
 cccacatgtc ggcagtgatg gcgggcacct tgcgggagaa ggccgggaag gtcgagcgag  
 180  
 ccaatgaccg tcgcacggtc ggcacgctcc acgagcggga cgagaagctc gcggcaggac  
 240  
 gctcactcgt cgcggtgtcc tccgcggtct ccatcaccgt ccctgcgaca tggaacgccc  
 300  
 acgacttcgg acggcgactc gacgcgt  
 327

<210> 254  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 254  
 Met Gly Ala Leu Ala Arg Val Leu Val Pro Ser Gln Pro Gly Glu Arg  
 1 5 10 15  
 Arg Ala Leu Thr Val Leu Tyr Arg Pro Ile Ser Gln Pro Ser Ala Asp  
 20 25 30  
 Arg Ser Thr Asn Arg Ala His Met Ser Ala Val Met Ala Gly Thr Leu  
 35 40 45  
 Arg Glu Lys Ala Gly Lys Val Glu Arg Ala Asn Asp Arg Arg Thr Val  
 50 55 60  
 Gly Thr Leu His Glu Arg Asp Glu Lys Leu Ala Ala Gly Arg Ser Leu  
 65 70 75 80  
 Val Ala Val Ser Ser Ala Val Ser Ile Thr Val Pro Ala Thr Trp Asn  
 85 90 95  
 Ala His Asp Phe Gly Arg Arg Leu Asp Ala  
 100 105

<210> 255  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

<400> 255  
 ctagaaatgg ctggctacga atacatggaa gctgaaaata gccacaagc ccacgaaatt  
 60  
 atcgtggacc atagacctga cttaatctta tgtgattgga tgatgccagg agggagtggc  
 120  
 atcgagctaa ctcgtcgctt aaagaaagac agcacgacag cagaaatccc tgttatttta  
 180  
 ctaacggcca aaagtgaaga agacaataaa attcaaggct tagaagtcgg tgcagatgac  
 240  
 tacatcacta aacctttctc tcctcgtgaa ctagtagcac gcctcaaggc ggtattacgc  
 300  
 cgagcgactc cacaaggtat tgatgaccc attgaaattg atggtttaac gcttgatccc  
 360  
 attagccaac gc  
 372

<210> 256  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

<400> 256  
 Leu Glu Met Ala Gly Tyr Glu Tyr Met Glu Ala Glu Asn Ser Gln Gln  
 1 5 10 15  
 Ala His Glu Ile Ile Val Asp His Arg Pro Asp Leu Ile Leu Cys Asp  
 20 25 30  
 Trp Met Met Pro Gly Gly Ser Gly Ile Glu Leu Thr Arg Arg Leu Lys  
 35 40 45  
 Lys Asp Ser Thr Thr Ala Glu Ile Pro Val Ile Leu Leu Thr Ala Lys  
 50 55 60  
 Ser Glu Glu Asp Asn Lys Ile Gln Gly Leu Glu Val Gly Ala Asp Asp  
 65 70 75 80  
 Tyr Ile Thr Lys Pro Phe Ser Pro Arg Glu Leu Val Ala Arg Leu Lys  
 85 90 95  
 Ala Val Leu Arg Arg Ala Thr Pro Gln Gly Ile Asp Asp Pro Ile Glu  
 100 105 110  
 Ile Asp Gly Leu Thr Leu Asp Pro Ile Ser Gln Arg  
 115 120

<210> 257  
 <211> 639  
 <212> DNA  
 <213> Homo sapiens

<400> 257  
 nnacgcgtag cggtcgaggt tgcggacacc atgcccgaac ccggcctgct cgccatcgag  
 60  
 gcacccatgg gacacggcaa gaccgaggcc gccctcatgt gcgcacaggt gctcgccgaa  
 120

cggttcgggc tcggcggcat cttcttcggt ctaccgacga tggccacgtc caatcccatg  
 180  
 ttcggtcgag ttcgggaatg gctggacgct gtgccagcca aggacccgtc aagcatttcc  
 240  
 ctggctcact cgaaagctgg actcaacgag gagtaccagc agctcatgcc gtggaacgcc  
 300  
 accatggccg tctacgacga aggtgccggc acgcagcgtg aagcttcggc gatcgtccat  
 360  
 gagtggttct tgggcccga ggcgcgcgac ctggccgacc acgtcgtcgg gaccatcgac  
 420  
 caggcactgt tcaccggtct caaagccaag catgtggtgt tacgccacct cggctctggcg  
 480  
 agcaaggctg tcattcattga tgagggtccac gccgccgacg tctatatgcy cgaatacctc  
 540  
 aaggctcgtc tcgaatggct cggcgcctac cgcacgccag tcattcctcat gtccgcgacg  
 600  
 ctgccaccgg cccaacgtca tgaactcgcg ctagcgtac  
 639

<210> 258

<211> 213

<212> PRT

<213> Homo sapiens

<400> 258

Xaa	Arg	Val	Ala	Val	Glu	Val	Ala	Asp	Thr	Met	Pro	Glu	Pro	Gly	Leu
1			5						10					15	
Leu	Ala	Ile	Glu	Ala	Pro	Met	Gly	His	Gly	Lys	Thr	Glu	Ala	Ala	Leu
			20					25						30	
Met	Cys	Ala	Gln	Val	Leu	Ala	Glu	Arg	Phe	Gly	Leu	Gly	Gly	Ile	Phe
		35					40						45		
Phe	Gly	Leu	Pro	Thr	Met	Ala	Thr	Ser	Asn	Pro	Met	Phe	Gly	Arg	Val
	50					55					60				
Arg	Glu	Trp	Leu	Asp	Ala	Val	Pro	Ala	Lys	Asp	Pro	Ser	Ser	Ile	Ser
65				70						75				80	
Leu	Ala	His	Ser	Lys	Ala	Gly	Leu	Asn	Glu	Glu	Tyr	Gln	Gln	Leu	Met
			85					90						95	
Pro	Trp	Asn	Ala	Thr	Met	Ala	Val	Tyr	Asp	Glu	Gly	Ala	Gly	Thr	Gln
		100						105						110	
Arg	Glu	Ala	Ser	Ala	Ile	Val	His	Glu	Trp	Phe	Leu	Gly	Arg	Lys	Arg
		115					120						125		
Ala	Ile	Leu	Ala	Asp	His	Val	Val	Gly	Thr	Ile	Asp	Gln	Ala	Leu	Phe
	130					135					140				
Thr	Gly	Leu	Lys	Ala	Lys	His	Val	Val	Leu	Arg	His	Leu	Gly	Leu	Ala
145				150					155					160	
Ser	Lys	Val	Val	Ile	Ile	Asp	Glu	Val	His	Ala	Ala	Asp	Val	Tyr	Met
			165					170						175	
Arg	Glu	Tyr	Leu	Lys	Val	Val	Leu	Glu	Trp	Leu	Gly	Ala	Tyr	Arg	Thr
		180						185					190		
Pro	Val	Ile	Leu	Met	Ser	Ala	Thr	Leu	Pro	Pro	Ala	Gln	Arg	His	Glu
		195					200						205		
Leu	Ala	Leu	Ala	Tyr											
210															

<210> 259  
 <211> 252  
 <212> DNA  
 <213> Homo sapiens

<400> 259  
 acgcgtgcac tgtgtgtatg catggtaacg tacacgtgtg cactgtgtgt ggtgtgcatg  
 60  
 ncatgggtgtg tgcacgtgtg cnactgtgta tgcattgtaa tgtgcacgtg tgcactgtg  
 120  
 tgtnggtgtg tatgcatgng tgtgtgcacg tgtgcactgn agtgtggggg gtatgcatgg  
 180  
 tgtgtgcaca tgagcactgt gtggtgtgta tgcattggtg ggtgcacgtg tgcactgtgt  
 240  
 atgcaatggg gt  
 252

<210> 260  
 <211> 84  
 <212> PRT  
 <213> Homo sapiens

<400> 260  
 Thr Arg Ala Leu Cys Val Cys Met Val Thr Tyr Thr Cys Ala Leu Cys  
 1 5 10 15  
 Val Val Cys Met Xaa Trp Cys Val His Val Cys Xaa Cys Val Cys Met  
 20 25 30  
 Val Met Cys Thr Cys Ala Xaa Val Cys Xaa Cys Val Cys Met Xaa Val  
 35 40 45  
 Cys Thr Cys Ala Leu Xaa Cys Gly Val Tyr Ala Trp Cys Val His Met  
 50 55 60  
 Ser Thr Val Trp Cys Val Cys Met Val Xaa Cys Thr Cys Ala Leu Cys  
 65 70 75 80  
 Met Gln Trp Cys

<210> 261  
 <211> 1202  
 <212> DNA  
 <213> Homo sapiens

<400> 261  
 gctagcccggt tcgcgttcgt cgtcgatttg ctggcggcag tccctcgat cgtcttcggt  
 60  
 ctgtggggcg gcatcgtctt cggatcgtcg ggaatcatca acggttacgc gggggcctta  
 120  
 ttcaaagcgc tcggctggat tccgatcttt tccgaagatc cgtcgtggtc ctcggctact  
 180  
 ggcacggtct accttgccag tctcgtcctg gccatcatga tcttgccaat tatcactgct  
 240  
 gttagcccggt acgtcatgcc ccgaacgccc catgatcaag tcgaggccgc gctcgccttc  
 300  
 ggatcgacgc gctgggaggt catcaagctt gcagtgttcc cccactcgcg gtccggcatt  
 360

atttcggat ccatgttggg tctaggacgc gccctcggcg agaccctggc tgtcaccctc  
 420  
 atcctgcaga cgatgagccc catggcgctc aaacagaacc tcaacctgtc gatcttcgtc  
 480  
 ggtggtgaga cattcgcgtc gaagattgcc ggtaacttct ccgaggccat tagcgatccc  
 540  
 acctcgctgg gtgccctcgt ggcgtcggcc ctggccctgt tcgtcattac cttcgtggtc  
 600  
 aacgcgactg cccggttgat tgcggcgaag ggggttaagc gatgagcgcc accaccctg  
 660  
 accacatcac ccaccatggc gacaacacgc ccggacagct agatctctcc cgcccgtctg  
 720  
 gtaaacggac tatcaagagc ggctgcgcct caacattcat gatcgtggcc accgtactgg  
 780  
 ctgttatccc actggcctgg ctgctcttcg cggccgtccg gcgcggcatc ggatcactat  
 840  
 tccacgcgtc gtggtggacc cactcgatgg atccctcctt cgacttggcc gagcagggcg  
 900  
 ccateccacgc tatcgtcgga acccttgaaa ttggccttat tacatcgatt atctcggtac  
 960  
 cgatcgctct gatgaccgcg atcttcctag tcgagtacgc ccgcggaact aagatcgcca  
 1020  
 aggtcattag cttcgccgtc gacgtgctaa ccggtgtacc ttcaatcgtc gcggccctct  
 1080  
 tcgtcttcgc cgtagtcggt accaccttcg gtggcaccca atccgcgtgg gcctcctcgt  
 1140  
 tggccctcat gacctcatg gttccgacgg tgctgcgac aaccgaggaa atgctcaagc  
 1200  
 tt  
 1202

&lt;210&gt; 262

&lt;211&gt; 214

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 262

Ala	Ser	Pro	Val	Ala	Phe	Val	Val	Asp	Leu	Leu	Ala	Ala	Val	Pro	Ser
1				5				10					15		
Ile	Val	Phe	Gly	Leu	Trp	Gly	Gly	Ile	Val	Phe	Gly	Ser	Ser	Gly	Ile
			20					25					30		
Ile	Asn	Gly	Tyr	Ala	Gly	Ala	Leu	Phe	Lys	Ala	Leu	Gly	Trp	Ile	Pro
		35					40					45			
Ile	Phe	Ser	Glu	Asp	Pro	Ser	Trp	Ser	Ser	Ala	Thr	Gly	Thr	Val	Tyr
	50					55				60					
Leu	Ala	Ser	Leu	Val	Leu	Ala	Ile	Met	Ile	Leu	Pro	Ile	Ile	Thr	Ala
65					70					75				80	
Val	Ser	Arg	Asp	Val	Met	Pro	Arg	Thr	Pro	His	Asp	Gln	Val	Glu	Ala
			85					90					95		
Ala	Leu	Ala	Leu	Gly	Ser	Thr	Arg	Trp	Glu	Val	Ile	Lys	Leu	Ala	Val
			100					105					110		
Phe	Pro	His	Ser	Arg	Ser	Gly	Ile	Ile	Ser	Gly	Ser	Met	Leu	Gly	Leu
		115					120					125			
Gly	Arg	Ala	Leu	Gly	Glu	Thr	Leu	Ala	Val	Thr	Leu	Ile	Leu	Gln	Thr

```

      130      135      140
Met Ser Pro Met Ala Leu Lys Gln Asn Leu Asn Leu Ser Ile Phe Val
145      150      155      160
Gly Gly Glu Thr Phe Ala Ser Lys Ile Ala Gly Asn Phe Ser Glu Ala
      165      170      175
Ile Ser Asp Pro Thr Ser Leu Gly Ala Leu Val Ala Ser Ala Leu Ala
      180      185      190
Leu Phe Val Ile Thr Phe Val Val Asn Ala Thr Ala Arg Leu Ile Ala
      195      200      205
Ala Lys Gly Val Lys Arg
      210

```

```

<210> 263
<211> 424
<212> DNA
<213> Homo sapiens

```

```

<400> 263
acgcgtgagt gctctgcgct ggaaacaacg gtgatagagc ccatccgccg tgaactttcc
60
gacgtggtgc tcgtgaacaa gctcgaaaag tatgtacgcg aacgtacctc ggaagacgtt
120
gcgcacatgg aagaggatgc ggaccagacg ggcaacgaca tcctcacgac gatcctgctg
180
tcgaactggg atccactatt ggatatgacg acgcaggatc atgtgctggc catgcaaaag
240
gcttatatgg cctcgccatt ccgtgccaat ttggacctgg catacccatc ttcgacgcca
300
caggcccagt cccagccggc gatgccgccg tgggagacag ggacctcagc cagtagcatg
360
gcggatgctc gtgaatttgc gctgctgaag ctgtacctgc gtagcttgct gcagaagcac
420
gann
424

```

```

<210> 264
<211> 99
<212> PRT
<213> Homo sapiens

```

```

<400> 264
Met Glu Glu Asp Ala Asp Gln Thr Gly Asn Asp Ile Leu Thr Thr Ile
1      5      10      15
Leu Leu Ser Asn Trp Asp Pro Leu Leu Asp Met Thr Thr Gln Asp His
20      25      30
Val Leu Ala Met Gln Lys Ala Tyr Met Ala Ser Pro Phe Arg Ala Asn
35      40      45
Leu Asp Leu Ala Tyr Pro Ser Ser Thr Pro Gln Ala Gln Ser Gln Pro
50      55      60
Ala Met Pro Pro Trp Glu Thr Gly Thr Ser Ala Ser Ser Met Ala Asp
65      70      75      80
Ala Arg Glu Phe Ala Leu Leu Lys Leu Tyr Leu Arg Ser Leu Leu Gln
85      90      95
Lys His Xaa

```



WO 00/58473

<210> 265  
 <211> 360  
 <212> DNA  
 <213> Homo sapiens

<400> 265  
 ncgtacggcc ctggcggtccg catggacgag ggataccatt ccggcatgac ggtgccgggt  
 60  
 gccttcgact ccctcatcgg caagctcatc atcactgggtg atagccgtga gcaagccctg  
 120  
 gctcgagctg cccgcgccct cgacgaaatc gtcacgacg gcatgccgac ggtcattccc  
 180  
 tttcaccagg cggtgggttca cgacccgggt ttcactgccg ccgacggctg cttcggcgtc  
 240  
 tttaccgact ggatcgaaac cgagttcgac aacaagatcg agccatacac cgggtctctg  
 300  
 ggcgagtctg ccaattccga gcctcctcgt gaggtcgtcg tcgaggtcaa cggtaaacgc  
 360

<210> 266  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 266  
 Xaa Tyr Gly Pro Gly Val Arg Met Asp Glu Gly Tyr His Ser Gly Met  
 1 5 10 15  
 Thr Val Pro Gly Ala Phe Asp Ser Leu Ile Gly Lys Leu Ile Ile Thr  
 20 25 30  
 Gly Asp Ser Arg Glu Gln Ala Leu Ala Arg Ala Ala Arg Ala Leu Asp  
 35 40 45  
 Glu Ile Val Ile Asp Gly Met Pro Thr Val Ile Pro Phe His Gln Ala  
 50 55 60  
 Val Val His Asp Pro Ala Phe Thr Ala Ala Asp Gly Cys Phe Gly Val  
 65 70 75 80  
 Phe Thr Asp Trp Ile Glu Thr Glu Phe Asp Asn Lys Ile Glu Pro Tyr  
 85 90 95  
 Thr Gly Ser Leu Gly Glu Ser Ala Asn Ser Glu Pro Pro Arg Glu Val  
 100 105 110  
 Val Val Glu Val Asn Gly Lys Arg  
 115 120

<210> 267  
 <211> 471  
 <212> DNA  
 <213> Homo sapiens

<400> 267  
 natcctcaac gtgtgttcag ttccacgcga aagatcatgt tcgtcatcgg atcgatgccg  
 60  
 ttaacgcac ctagtcaatc caccgatggc gaccctggca aaaaatacga ggtgacttgg  
 120

ctagatctcg ggcaccttca ccctagtcgg ccgggactcg tcactatcac cacaactgtc  
 180  
 gatgatgacg tcatcacctc ttcccaggta aatgtcggca acctccaccg cggggatgaa  
 240  
 aaacttttcg aagctcgcga ttaccgccag attccgatgc ttgcatcacg tcatggctgg  
 300  
 acagctccat tcattggtga gaccggcgca gcccatgcc a tcaggatgc gatgggcatt  
 360  
 accatcccaa ctgcgtggc atggatacga accctgctcg ctgagttcag cagaatcacc  
 420  
 tcacacttca cttttttgtc atgggtaggc catcactgtg atgatgccgg c  
 471

<210> 268  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens

<400> 268  
 Xaa Pro Gln Arg Val Phe Ser Ser Thr Arg Lys Ile Met Phe Val Ile  
 1 5 10 15  
 Gly Ser Met Pro Leu Thr His Pro Ser Gln Ser Thr Asp Gly Asp Pro  
 20 25 30  
 Gly Lys Lys Tyr Glu Val Thr Trp Leu Asp Leu Gly His Leu His Pro  
 35 40 45  
 Ser Arg Pro Gly Leu Val Thr Ile Thr Thr Thr Val Asp Asp Asp Val  
 50 55 60  
 Ile Thr Ser Ser Gln Val Asn Val Gly Asn Leu His Arg Gly Asp Glu  
 65 70 75 80  
 Lys Leu Phe Glu Ala Arg Asp Tyr Arg Gln Ile Pro Met Leu Ala Ser  
 85 90 95  
 Arg His Gly Trp Thr Ala Pro Phe Ile Gly Glu Thr Gly Ala Ala His  
 100 105 110  
 Ala Ile Glu Asp Ala Met Gly Ile Thr Ile Pro Thr Arg Val Ala Trp  
 115 120 125  
 Ile Arg Thr Leu Leu Ala Glu Phe Ser Arg Ile Thr Ser His Phe Thr  
 130 135 140  
 Phe Leu Ser Trp Val Gly His His Cys Asp Asp Ala Gly  
 145 150 155

<210> 269  
 <211> 387  
 <212> DNA  
 <213> Homo sapiens

<400> 269  
 acgcgtgtcg tgtttccaga aaaaaccaat aaattagagt ttatggtaga agtgattgct  
 60  
 gatatgacgg taatcaatcc atttgatttc tttgtggaaa gctacgcaga agactaccca  
 120  
 tttgcttatg acaaagctct taaaaaagag ttagaacctt atttacaggt ttctgaacct  
 180  
 tggttcgttac tcgacaaatg gctgtctggt gttgatcgtg aaaaaacacc gatcaatgat  
 240

WO 00/58473

tttctagtcg caataaacag tcgccttgcc ggtgatattg gctatgggtat tcgcttagaa  
 300  
 ccgggcgttc agtcacctga agaaacgctc acattaatga aaggctcttg tcgcgatacc  
 360  
 tcgggggttat tggttcaaact actacgc  
 387

<210> 270  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

<400> 270  
 Thr Arg Val Val Phe Pro Glu Lys Thr Asn Lys Leu Glu Phe Met Val  
 1 5 10 15  
 Glu Val Ile Ala Asp Met Thr Val Ile Asn Pro Phe Asp Phe Phe Val  
 20 25 30  
 Glu Ser Tyr Ala Glu Asp Tyr Pro Phe Ala Tyr Asp Lys Ala Leu Lys  
 35 40 45  
 Lys Glu Leu Glu Pro Tyr Leu Gln Val Ser Glu Pro Cys Ser Leu Leu  
 50 55 60  
 Asp Lys Trp Leu Ser Gly Val Asp Arg Glu Lys Thr Pro Ile Asn Asp  
 65 70 75 80  
 Phe Leu Val Ala Ile Asn Ser Arg Leu Ala Gly Asp Ile Gly Tyr Gly  
 85 90 95  
 Ile Arg Leu Glu Pro Gly Val Gln Ser Pro Glu Glu Thr Leu Thr Leu  
 100 105 110  
 Met Lys Gly Ser Cys Arg Asp Thr Ser Gly Leu Leu Val Gln Ile Leu  
 115 120 125  
 Arg

<210> 271  
 <211> 443  
 <212> DNA  
 <213> Homo sapiens

<400> 271  
 gccggcacca acggaaagtc ctctaccgcg cgcattggctg attcgctttt gcgtgccttc  
 60  
 caccgccgag tgggttttggg aaccagccca cacctgcagc gcgttactga gcgcacggc  
 120  
 attgatggcc agcccattca cccgcgcgat tatgtacgca tctggcacga gattaagcca  
 180  
 tttgtggaaa tggtcgatgc cgaatcggac gtgcctatgt ctaagtccga ggtcttcgtg  
 240  
 ggctgtcct atgctgcgtt tgccgacgcc cccggggacg tcgctgtcgt cgaagtcggc  
 300  
 cttggcggac gttgggacgc taccaatgtg gtcaacgcgg atgtctctgt cattaccccg  
 360  
 gtgggcatgg accacacgga ttacctgggg gagacgatca ctgaaatcgc aggcgagaaa  
 420  
 gctggcatta ttaagccacg cgt  
 443

<210> 272  
 <211> 147  
 <212> PRT  
 <213> Homo sapiens

<400> 272  
 Ala Gly Thr Asn Gly Lys Ser Ser Thr Ala Arg Met Val Asp Ser Leu  
 1 5 10 15  
 Leu Arg Ala Phe His Arg Arg Val Gly Leu Val Thr Ser Pro His Leu  
 20 25 30  
 Gln Arg Val Thr Glu Arg Ile Gly Ile Asp Gly Gln Pro Ile His Pro  
 35 40 45  
 Arg Asp Tyr Val Arg Ile Trp His Glu Ile Lys Pro Phe Val Glu Met  
 50 55 60  
 Val Asp Ala Glu Ser Asp Val Pro Met Ser Lys Phe Glu Val Phe Val  
 65 70 75 80  
 Gly Leu Ser Tyr Ala Ala Phe Ala Asp Ala Pro Gly Asp Val Ala Val  
 85 90 95  
 Val Glu Val Gly Leu Gly Gly Arg Trp Asp Ala Thr Asn Val Val Asn  
 100 105 110  
 Ala Asp Val Ser Val Ile Thr Pro Val Gly Met Asp His Thr Asp Tyr  
 115 120 125  
 Leu Gly Glu Thr Ile Thr Glu Ile Ala Gly Glu Lys Ala Gly Ile Ile  
 130 135 140  
 Lys Pro Arg  
 145

<210> 273  
 <211> 864  
 <212> DNA  
 <213> Homo sapiens

<400> 273  
 caaagtaaga ctgcttcaaa ttttgtgttc tgctctgcag ctgctcccc cctgctgtcg  
 60  
 aagagaagcc aaagcccccc cccccacct caaaggctcg gaagtctggc atccctactt  
 120  
 ccgagcctgg atcccagtaa ggatcttgcc ctccctgcaa caccgagtgc cttagacagc  
 180  
 tgctgcctga gaactggcct ccagccggtg tcttcattcc atggggctcc ctgctgactg  
 240  
 catttcctga tctgggatga tgtttaccag cccaaaacca gtcattgtct tccaaaagct  
 300  
 tctctttgat agaattttga ggccatgcca cctcccttcc agtccacatg gaattccaga  
 360  
 atcagtcaca gcctctgatt ttttccaaga agagattgcc ttcaccattg ttaaattgtca  
 420  
 gcctgtacgg cagagacatg gtggtctgca caagcctgga caagttcttc catattgatg  
 480  
 gtgggagcaa cccctgtaat ctactccttg gaaggatttt ttgctttgct tatgaaaagc  
 540  
 tgtgcttgag acttaggtac ttttctcacg tggacacact gatcccatcc catattgcat  
 600

WO 00/58473

ctttgaagag atggatatca agtacacttt ggtagctgaa ataatcatat ctttctgatg  
 660  
 tctattgtat ctcctttgag gaaaagaaca cacattttta atggagattg gctgctttca  
 720  
 ggtatgtgtg tctatcattg aaagagcatg gactcaaaca tcagccctga gttcttgagt  
 780  
 ccaccaact cccatcttct tgtggcacag gaaagctgcc ctctccctct cccaccacac  
 840  
 tcctgactaa tgcccttcac gcgt  
 864

<210> 274  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 274  
 Met Trp Thr Gly Arg Glu Val Ala Trp Pro Gln Asn Ser Ile Lys Glu  
 1 5 10 15  
 Lys Leu Leu Glu Glu His Asp Trp Phe Trp Ala Gly Lys His His Pro  
 20 25 30  
 Arg Ser Gly Asn Ala Val Ser Arg Glu Pro His Gly Met Arg Thr Pro  
 35 40 45  
 Ala Gly Gly Gln Phe Ser Gly Ser Ser Cys Leu Arg His Ser Val Leu  
 50 55 60  
 Gln Gly Gly Gln Asp Pro Tyr Trp Asp Pro Gly Ser Glu Val Gly Met  
 65 70 75 80  
 Pro Asp Phe Arg Ala Phe Glu Val Gly Gly Gly Gly Phe Gly Phe Ser  
 85 90 95  
 Ser Thr Ala Gly Gly Ser Glu Leu Gln Ser Arg Thr Gln Asn Leu Lys  
 100 105 110  
 Gln Ser Tyr Phe  
 115

<210> 275  
 <211> 911  
 <212> DNA  
 <213> Homo sapiens

<400> 275  
 naaatttaaa ggaacctccc ttctataacg gagagtattt attgcagctt tcctttctgt  
 60  
 ttattttcag gaatgaaagg aattaccag ctttctgctt ttatacctac agctgaaagt  
 120  
 aattccttcc agcctcaggt gaagactttg ccattctcaa ttgatgctaa acagcagttg  
 180  
 caacggaaaa tccagaagaa gcagcaagaa cagaaactac aatccccctt gccaggagaa  
 240  
 tctgcagcaa aaaagtcaga aagtgtaca agcaatggag tgactaatct tcctaattgga  
 300  
 aatccttcaa tcctttctcc tcaacctatt ggtatcggtg tggcagctgt ccctagtccc  
 360  
 attccggtcc agcggactag gcaattggtg acttcaccga gtccaatgag ttcttctnga  
 420

cggcaaagtt cttccctca atgtacaggt ggtcactcag cacatgcagt ctgtgaaaca  
 480  
 ggcaccaaag actccccaga acgttccagc agtcctggtg ggaatcggtc tgcccggcac  
 540  
 cgttaccctc agatcttacc caaaccagcg aacaccagtg cactcaccat tcgctctcca  
 600  
 actactgtcc tctttactag tagtcccatc aaaactgctg ttgtaccgcg ttcacacatg  
 660  
 agttctctaa atgtggtgaa aatgacaaca atatccctca caccagcaa cagtaacacc  
 720  
 cctcttaaac attctgcctc agtcagcagt gctacaggaa caacagaaga atcaaggagt  
 780  
 gttccacaga tcaagaatgg ttctgtcgtg tcgcttcagt ctctggggtc caggagcagc  
 840  
 agtgcggggg gaacatctgc tgtggaagtc aaagtggaac ccgaaacatc atcagatgag  
 900  
 catectgtac a  
 911

&lt;210&gt; 276

&lt;211&gt; 279

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 276

Met	Lys	Gly	Ile	Thr	Gln	Pro	Ser	Ala	Phe	Ile	Pro	Thr	Ala	Glu	Ser
1				5					10					15	
Asn	Ser	Phe	Gln	Pro	Gln	Val	Lys	Thr	Leu	Pro	Ser	Pro	Ile	Asp	Ala
			20					25					30		
Lys	Gln	Gln	Leu	Gln	Arg	Lys	Ile	Gln	Lys	Lys	Gln	Gln	Glu	Gln	Lys
		35					40					45			
Leu	Gln	Ser	Pro	Leu	Pro	Gly	Glu	Ser	Ala	Ala	Lys	Lys	Ser	Glu	Ser
	50					55					60				
Ala	Thr	Ser	Asn	Gly	Val	Thr	Asn	Leu	Pro	Asn	Gly	Asn	Pro	Ser	Ile
65				70					75					80	
Leu	Ser	Pro	Gln	Pro	Ile	Gly	Ile	Val	Val	Ala	Ala	Val	Pro	Ser	Pro
			85					90					95		
Ile	Pro	Val	Gln	Arg	Thr	Arg	Gln	Leu	Val	Thr	Ser	Pro	Ser	Pro	Met
		100					105					110			
Ser	Ser	Ser	Xaa	Arg	Gln	Ser	Ser	Ser	Pro	Gln	Cys	Thr	Gly	Gly	His
	115					120					125				
Ser	Ala	His	Ala	Val	Cys	Glu	Thr	Gly	Thr	Lys	Asp	Ser	Pro	Glu	Arg
	130					135					140				
Ser	Ser	Ser	Pro	Gly	Gly	Asn	Arg	Ser	Ala	Arg	His	Arg	Tyr	Pro	Gln
145				150					155					160	
Ile	Leu	Pro	Lys	Pro	Ala	Asn	Thr	Ser	Ala	Leu	Thr	Ile	Arg	Ser	Pro
			165						170				175		
Thr	Thr	Val	Leu	Phe	Thr	Ser	Ser	Pro	Ile	Lys	Thr	Ala	Val	Val	Pro
		180						185				190			
Ala	Ser	His	Met	Ser	Ser	Leu	Asn	Val	Val	Lys	Met	Thr	Thr	Ile	Ser
	195					200					205				
Leu	Thr	Pro	Ser	Asn	Ser	Asn	Thr	Pro	L	u	Lys	His	Ser	Ala	Ser
	210					215					220				
Ser	Ser	Ala	Thr	Gly	Thr	Thr	Glu	Glu	Ser	Arg	Ser	Val	Pro	Gln	Ile

```
<210> 277
<211> 652
<212> DNA
<213> Homo sapiens
```

```
<210> 278
<211> 115
<212> PRT
<213> Homo sapiens
```

BNSDOCID: <WO\_\_0058473A2\_1\_>

85 90 95  
 Gly Asp Asp Ser Gly Val Ala Asp Thr Gly Glu Ala Asp Val Pro Gly  
 100 105 110  
 Ser Gly Ser  
 115

<210> 279  
 <211> 348  
 <212> DNA  
 <213> Homo sapiens

<400> 279  
 cgggaggtca cacaagcatt caaaccatag cagatggtaa atgttatgtt atgtgtattt  
 60  
 taccacaatc cttaaaaaga aaagaaagaa aggcatatgg aacccttagt tacctctcat  
 120  
 ccagcttcaa aattgtcagt gcatgggtcaa tcttgtctta tctgcccctc acccaccctt  
 180  
 ttccagaaag aagaccacaga ggattccaca tctgcctgga aaccacgacc agtctcgact  
 240  
 ggaagtgtgt gttaatgttg catgtattca taaaacctct aggcatttct agtgtccctc  
 300  
 agaatttttc caaattcagg caaacacaga aattacttcc aaaaattt  
 348

<210> 280  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 280  
 Met Cys Ile Leu Pro Gln Ser Leu Lys Arg Lys Glu Arg Lys Ala Tyr  
 1 5 10 15  
 Gly Thr Pro Ser Tyr Leu Ser Ser Ser Phe Lys Ile Val Ser Ala Trp  
 20 25 30  
 Ser Ile Leu Ser Tyr Leu Pro Leu Thr His Pro Phe Pro Glu Arg Arg  
 35 40 45  
 Pro Arg Gly Phe His Ile Cys Leu Glu Thr Thr Thr Ser Leu Asp Trp  
 50 55 60  
 Lys Leu Leu Leu Met Leu His Val Phe Ile Lys Pro Leu Gly Ile Ser  
 65 70 75 80  
 Ser Val Pro Gln Asn Phe Ser Lys Phe Arg Gln Thr Gln Lys Leu Leu  
 85 90 95  
 Pro Lys Ile

<210> 281  
 <211> 384  
 <212> DNA  
 <213> Homo sapiens

<400> 281  
 agatctgcgc agatcgataa tggattaaag actcttgacg ctggagtcac cgagatgaac  
 60



WO 00/58473

aacaaggtgt tgggggcaac gaaggctgtc ggtgattcca ccactaccgt caaccaggtg  
 120  
 aattctgcgt taggaantgc cgactcagcg gcagagaaga cgtcgagcgc cgttactcag  
 180  
 acgcgcgtgg gtgcccaggc gattaccggc gctgctcaaa atgtcatggc tgattcccaa  
 240  
 gctgtcaact cagccatggc tccgcttatt aataacgtga caaagaatct tcctaccttg  
 300  
 caaaaacagg ccaggaatct cgtgtcagtg aacgggtaccc tgcagaaccc caacgggtgat  
 360  
 tctgtcatta agattcaaca gacc  
 384

<210> 282  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 282  
 Met Asn Asn Lys Val Leu Gly Ala Thr Lys Ala Val Gly Asp Ser Thr  
 1 5 10 15  
 Thr Thr Val Asn Gln Val Asn Ser Ala Leu Gly Xaa Ala Asp Ser Ala  
 20 25 30  
 Ala Glu Lys Thr Ser Ser Ala Val Thr Gln Thr Arg Val Gly Ala Gln  
 35 40 45  
 Ala Ile Thr Gly Ala Ala Gln Asn Val Met Ala Asp Ser Gln Ala Val  
 50 55 60  
 Asn Ser Ala Met Val Pro Leu Ile Asn Asn Val Thr Lys Asn Leu Pro  
 65 70 75 80  
 Thr Leu Gln Lys Gln Ala Arg Asn Leu Val Ser Val Asn Gly Thr Leu  
 85 90 95  
 Gln Asn Pro Asn Gly Asp Ser Val Ile Lys Ile Gln Gln Thr  
 100 105 110

<210> 283  
 <211> 426  
 <212> DNA  
 <213> Homo sapiens

<400> 283  
 cgcgtagacc aatgtgagac ggccgtcacc aagggcatgc gcgacaagtc gggttggtagc  
 60  
 ggaccggata ttgtgcgtcg cgagctgcgc catgtcgtga cgagcggcac gattgtcgat  
 120  
 ggaagcgtac tggctgacga attgagcagc tactgcatga gtatcaagga gcacgtccgc  
 180  
 tctgatggcc tatecgagtt tggcatctgc accctcgacg ccgccaccgc cgagttccga  
 240  
 tacatgacat tcgtcgacga tgccgtgctg tcacaactcg agacattgct gcgttctcta  
 300  
 cgcacaaagg aagtcttgca tgaaaaaggg gtcattgtgc cttccacgct gcgcttgatc  
 360  
 cgcaacgcgg tgcccaccac ctgccaatt accatgctca agcctgatac cgaattgtcg  
 420

gagaga  
426

<210> 284  
<211> 142  
<212> PRT  
<213> Homo sapiens

<400> 284  
Arg Val Asp Gln Cys Glu Thr Ala Val Thr Lys Gly Met Arg Asp Lys  
1 5 10 15  
Ser Val Gly Ser Gly Pro Asp Ile Val Arg Arg Glu Leu Arg His Val  
20 25 30  
Val Thr Ser Gly Thr Ile Val Asp Gly Ser Val Leu Ala Asp Glu Leu  
35 40 45  
Ser Ser Tyr Cys Met Ser Ile Lys Glu His Val Arg Ser Asp Gly Leu  
50 55 60  
Ser Glu Phe Gly Ile Cys Thr Leu Asp Ala Ala Thr Ala Glu Phe Arg  
65 70 75 80  
Tyr Met Thr Phe Val Asp Asp Ala Val Leu Ser Gln Leu Glu Thr Leu  
85 90 95  
Leu Arg Ser Leu Arg Ile Lys Glu Val Leu His Glu Lys Gly Val Met  
100 105 110  
Leu Pro Ser Thr Leu Arg Leu Ile Arg Asn Ala Val Pro Thr Thr Cys  
115 120 125  
Gln Ile Thr Met Leu Lys Pro Asp Thr Glu Leu Ser Glu Arg  
130 135 140

<210> 285  
<211> 345  
<212> DNA  
<213> Homo sapiens

<400> 285  
acgcgtgcag tcccttaccg acatgctggc agatgagctc gacggcagcc gcttcaccgg  
60  
cgatttctca gaaatctaca aacgtcagaa ctcgatcttc ggcgatgtaa ggaataactt  
120  
ttacaaaaaa ggataccgca tcatcaacgt agcgaatggg gtattgcgca agatttcact  
180  
ggtaagcgca ggcaatgcag acaatgtgaa aggtcaggcc ctgttcttcc gcggtgtggc  
240  
gcatttcgaa ctcggtgcgtt tgtttgcaca accctggggg tataacttcgg acaattcaca  
300  
ctacggcatc ccgctccgca atgaaatcgt aattggttct attcn  
345

<210> 286  
<211> 107  
<212> PRT  
<213> Homo sapiens

<400> 286  
Met Leu Ala Asp Glu Leu Asp Gly Ser Arg Phe Thr Gly Asp Phe Ser

1	5	10	15
Glu Ile Tyr Lys Arg Gln Asn Ser Ile Phe Gly Asp Val Arg Asn Asn			
	20	25	30
Phe Tyr Lys Lys Gly Tyr Arg Ile Ile Asn Val Ala Asn Gly Val Leu			
	35	40	45
Arg Lys Ile Ser Leu Val Ser Ala Gly Asn Ala Asp Asn Val Lys Gly			
	50	55	60
Gln Ala Leu Phe Phe Arg Gly Val Ala His Phe Glu Leu Val Arg Leu			
65	70	75	80
Phe Ala Gln Pro Trp Gly Tyr Thr Ser Asp Asn Ser His Tyr Gly Ile			
	85	90	95
Pro Leu Arg Asn Glu Ile Val Ile Gly Ser Ile			
	100	105	

<210> 287  
 <211> 1379  
 <212> DNA  
 <213> Homo sapiens

<400> 287  
 nnttaactgc ccctttgcag tctttattct gggacattag cactgtctgg ttatcttgct  
 60  
 tcagttgagg gattcgggac aatagcagtg ctgatggtaa tggtggcgat ttccctgttt  
 120  
 gttttgcagg tcacggccag gggctttggg ccgctgttac agtttgccta cactgccaaag  
 180  
 ctgttactca gcagagaaaa catccgcgag gtcacccgct gtgctgagtt cctgcgcatg  
 240  
 cacaacctgg aggactcctg cttcagcttc ctgcagaccc agctcctgaa cagtgaggat  
 300  
 ggcttggttg tgtgccggaa ggatgctgcg tgccagcgcc cacacgagga ctgcgagaac  
 360  
 tctgcaggag aggaggagga tgaagaggag gagacgatgg attcagagac ggccaagatg  
 420  
 gcttgcccca gggaccagat gcttcagag cccatcagct ttgaggccgc cgccatcccc  
 480  
 gtagcagaga aggaagaagc cctgctgccc gagcctgacg tgccacaga caccaaggag  
 540  
 agctcagaaa aggacgcgtt aacgcagtac cccagatata agaaatacca gcttgcatgt  
 600  
 accaagaatg tctataatgc atcatcacac agtacctcag gttttgcaag cacattccgg  
 660  
 gaagataact ctagcaacag cctcaagccg gggcttgcca gggggcagat taaaagtgag  
 720  
 ccgcccagtg aagagaatga ggaagagagc atcacgctct gcctgtctgg agatgagcct  
 780  
 gacgccaagg acagagcggg ggatgtcgag atggaccgga aacagcccag ccctgcccct  
 840  
 acccccacgg ccccagctgg ggccgctgc ctggagagat ccaggagcgt ggctcgccc  
 900  
 tcctgcttaa ggtctctgtt cagcataacg aaaagtgtgg agctgtctgg cctgcccagt  
 960  
 acatctcagc agcactttgc caggagtcca gcctgccctt ttgacaaggg gatcactcag  
 1020

ggtgacctta aaactgacta cacccttttc acaggaatt atggacagcc ccacgtgggc  
 1080  
 cagaaggagg tgtccaactt caccatgggg tgcacctca gggggcctgg gttggaggct  
 1140  
 ctctgtaaac aggagggaga gctggaccgg aggagcgtga tcttctcctc cagcgcttgt  
 1200  
 gaccaagtga gcacctcggg gcattcttat tctgggggtga gcagtttgga caaagacctc  
 1260  
 tctgagccgg tgccaaaggg tctgtgggtg ggagccggcc agtccctccc cagctcgcag  
 1320  
 gcctactccc acggtgggct gatggccgac cacttgccag gaaggatgcg gcccaacac  
 1379

<210> 288

<211> 428

<212> PRT

<213> Homo sapiens

<400> 288

Met	Val	Met	Leu	Ala	Ile	Ser	Leu	Phe	Val	Leu	Gln	Val	Thr	Ala	Arg	1	5	10	15
Gly	Phe	Gly	Pro	Leu	Leu	Gln	Phe	Ala	Tyr	Thr	Ala	Lys	Leu	Leu	Leu	20	25	30	
Ser	Arg	Glu	Asn	Ile	Arg	Glu	Val	Ile	Arg	Cys	Ala	Glu	Phe	Leu	Arg	35	40	45	
Met	His	Asn	Leu	Glu	Asp	Ser	Cys	Phe	Ser	Phe	Leu	Gln	Thr	Gln	Leu	50	55	60	
Leu	Asn	Ser	Glu	Asp	Gly	Leu	Phe	Val	Cys	Arg	Lys	Asp	Ala	Ala	Cys	65	70	75	80
Gln	Arg	Pro	His	Glu	Asp	Cys	Glu	Asn	Ser	Ala	Gly	Glu	Glu	Glu	Asp	85	90	95	
Glu	Glu	Glu	Glu	Thr	Met	Asp	Ser	Glu	Thr	Ala	Lys	Met	Ala	Cys	Pro	100	105	110	
Arg	Asp	Gln	Met	Leu	Pro	Glu	Pro	Ile	Ser	Phe	Glu	Ala	Ala	Ala	Ile	115	120	125	
Pro	Val	Ala	Glu	Lys	Glu	Glu	Ala	Leu	Leu	Pro	Glu	Pro	Asp	Val	Pro	130	135	140	
Thr	Asp	Thr	Lys	Glu	Ser	Ser	Glu	Lys	Asp	Ala	Leu	Thr	Gln	Tyr	Pro	145	150	155	160
Arg	Tyr	Lys	Lys	Tyr	Gln	Leu	Ala	Cys	Thr	Lys	Asn	Val	Tyr	Asn	Ala	165	170	175	
Ser	Ser	His	Ser	Thr	Ser	Gly	Phe	Ala	Ser	Thr	Phe	Arg	Glu	Asp	Asn	180	185	190	
Ser	Ser	Asn	Ser	Leu	Lys	Pro	Gly	Leu	Ala	Arg	Gly	Gln	Ile	Lys	Ser	195	200	205	
Glu	Pro	Pro	Ser	Glu	Glu	Asn	Glu	Glu	Glu	Ser	Ile	Thr	Leu	Cys	Leu	210	215	220	
Ser	Gly	Asp	Glu	Pro	Asp	Ala	Lys	Asp	Arg	Ala	Gly	Asp	Val	Glu	Met	225	230	235	240
Asp	Arg	Lys	Gln	Pro	Ser	Pro	Ala	Pro	Thr	Pro	Thr	Ala	Pro	Ala	Gly	245	250	255	
Ala	Ala	Cys	Leu	Glu	Arg	Ser	Arg	Ser	Val	Ala	Ser	Pro	Ser	Cys	Leu	260	265	270	
Arg	Ser	Leu	Phe	Ser	Ile	Thr	Lys	Ser	Val	Glu	Leu	Ser	Gly	Leu	Pro				

```
<210> 289
<211> 822
<212> DNA
<213> Homo sapiens
```

<400> 289  
ngcattaccg ggctgaagac ggggtgctcat gacctcaacg atataggcta ttgctagaac  
60  
cacgccggcc cacgccgcgc aaagcgcaga cacggcacca ggaggggtca catggctgat  
120  
agcaagtcga aggcgaagga cgagcgcact gccgatgaga tcaggcggga tattgcagcg  
180  
acccgtgctt gcctggcagc cgggggtggag aacctcgtgg aggaggtgca tccggcaacc  
240  
ctcaagcgtg aagcatctga tcgtgcccgt gattttgtgc agggtgagtt tgatcaggtc  
300  
aagagccagg tcaaagatga gaaatgggtg cgcgtgcagc ggatcgcgat ggccgcagga  
360  
gtgctcgctg ccggcgtcgt cagcattatt gtgctgcgcg cgatagtcgg tcgcgcaacg  
420  
ggcgtaccg ctcgtcgcaa gcttgagaag ctgcagcttt ctcaggcgaa gcggggttcga  
480  
aaagatgcca agcagcgtag taaggaagat gaaaaggcag ccaagaaaaa tgccaagctc  
540  
ggcaagaaga acgctaagaa gtacggcaag ctcgataccg atgactcgtc ggtaagcaac  
600  
cttgccgaga aaatgctcaa acaggccgcc gtgctgcgtg cacaggcggc tgccggggcg  
660  
tgagaacagt gccgcctagc aaacagcggc cacagcgcaa aacaggtttg gctccgacct  
720  
atggtggacc ggagccaaac tgtgttaccg catcatttga taccgccagc agccaggcct  
780  
gcgacaatgc gacgctggaa taccagcacc atgatgacta gt  
822

<210> 290  
 <211> 183  
 <212> PRT  
 <213> Homo sapiens

<400> 290  
 Met Ala Asp Ser Lys Ser Lys Ala Lys Asp Glu Arg Thr Ala Asp Glu  
 1 5 10 15  
 Ile Arg Arg Asp Ile Ala Ala Thr Arg Ala Cys Leu Ala Ala Gly Val  
 20 25 30  
 Glu Asn Leu Val Glu Glu Val His Pro Ala Thr Leu Lys Arg Glu Ala  
 35 40 45  
 Ser Asp Arg Ala Arg Asp Phe Val Gln Gly Glu Phe Asp Gln Val Lys  
 50 55 60  
 Ser Gln Val Lys Asp Glu Lys Trp Trp Arg Val Gln Arg Ile Ala Met  
 65 70 75 80  
 Ala Ala Gly Val Leu Ala Ala Gly Val Val Ser Ile Ile Val Leu Arg  
 85 90 95  
 Ala Ile Val Gly Arg Ala Thr Gly Ala Thr Ala Arg Arg Lys Leu Glu  
 100 105 110  
 Lys Leu Gln Leu Ser Gln Ala Lys Arg Val Arg Lys Asp Ala Lys Gln  
 115 120 125  
 Arg Ser Lys Glu Asp Glu Lys Ala Ala Lys Lys Asn Ala Lys Leu Gly  
 130 135 140  
 Lys Lys Asn Ala Lys Lys Tyr Gly Lys Leu Asp Thr Asp Asp Ser Ser  
 145 150 155 160  
 Val Ser Asn Leu Ala Glu Lys Met Leu Lys Gln Ala Ala Val Leu Arg  
 165 170 175  
 Ala Gln Ala Ala Ala Gly Ala  
 180

<210> 291  
 <211> 351  
 <212> DNA  
 <213> Homo sapiens

<400> 291  
 ctccacgccg acaagactta cgacgggcgt cgctgccggg ctgagtgccg ggcccgcctcc  
 60  
 atcacccccc gcatcgctcg ccgcggcgtg gagaccagcg agcgcttggg ccggtatcgc  
 120  
 tgggtcgtcg agcgcacctt cgcttggtc aaccgcttcc ggcgcctcgc catccgctac  
 180  
 gagcggcgtg ctgacatcca cgaagccttc gtgatactcg gctgcgcctt catctgcctc  
 240  
 aaccagatca gacggttttg ttaggtgctg taaagggaga atggctgcag ctgggctatc  
 300  
 tgctccctcg tcaaccagaa acaggctgct catcctcact caacaacgcg t  
 351

<210> 292  
 <211> 87  
 <212> PRT

WO 00/58473

&lt;213&gt; Homo sapiens

&lt;400&gt; 292

Leu His Ala Asp Lys Thr Tyr Asp Gly Arg Arg Cys Arg Ala Glu Cys  
 1 5 10 15  
 Arg Ala Arg Ser Ile Thr Pro Arg Ile Ala Arg Arg Gly Val Glu Thr  
 20 25 30  
 Ser Glu Arg Leu Gly Arg Tyr Arg Trp Val Val Glu Arg Thr Phe Ala  
 35 40 45  
 Trp Leu Asn Arg Phe Arg Arg Leu Ala Ile Arg Tyr Glu Arg Arg Ala  
 50 55 60  
 Asp Ile His Glu Ala Phe Val Ile Leu Gly Cys Ala Leu Ile Cys Leu  
 65 70 75 80  
 Asn Gln Ile Arg Arg Phe Cys  
 85

&lt;210&gt; 293

&lt;211&gt; 716

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 293

nncttcacca caccggccat caacgcacct cctcgtgata acttgacctt ctgccgaacc  
 60  
 ggттаатсag tttagtgгсg aggcатgaca cgttgacgag tcagctgtgg tacatgtgсg  
 120  
 gaacactcac aatgccacgg cggcatgttg ctgtcggтca cgacccttat ggtgatсgct  
 180  
 gtgagaaccc gaacggcaga tgcgattctg gcggcactgg atctgaacag gtttaaggтt  
 240  
 gcgaagactt tcgatgttcc agtgtgcгtc atagctggтg ccgggacagg таааactсgt  
 300  
 gctgtcactc atcgcattgc ctacggтgca gcgacaggca agcttgatcc gcgtcгtacc  
 360  
 ctсgcгgtca cttttacgac таaggcagct ggcacgatga gaggtcгact cgcсgatctg  
 420  
 ggggttgгttg gtgtgcaggc tcgcactatt cattctgcгg cgttgсгgca gatcaagттt  
 480  
 ttctggcctc gtgcatataa ctgtgagттg ccaccggтga gtgattctгg tttctсgatg  
 540  
 gtggcгgaga cgaccatсg cattggтctg ggcaatgaca aggcгctгct gcгcгactтg  
 600  
 тccгccгaga тctсgtggгc gaaggтctca aatgtgcсga ctgatcaata cгcatccctg  
 660  
 gctaggгcгg aaggтcгggг ggtggcгggga gtttcгgcaa ctgacгtagg acгcгt  
 716

&lt;210&gt; 294

&lt;211&gt; 190

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 294

Met Leu Leu Ser Val Thr Thr Leu Met Val Ile Ala Val Arg Thr Arg

```

      1           5           10           15
Thr Ala Asp Ala Ile Leu Ala Ala Leu Asp Leu Asn Arg Phe Lys Val
      20           25           30
Ala Lys Thr Phe Asp Val Pro Val Cys Val Ile Ala Gly Ala Gly Thr
      35           40           45
Gly Lys Thr Arg Ala Val Thr His Arg Ile Ala Tyr Gly Ala Ala Thr
      50           55           60
Gly Lys Leu Asp Pro Arg Arg Thr Leu Ala Val Thr Phe Thr Thr Lys
      65           70           75           80
Ala Ala Gly Thr Met Arg Gly Arg Leu Ala Asp Leu Gly Val Val Gly
      85           90           95
Val Gln Ala Arg Thr Ile His Ser Ala Ala Leu Arg Gln Ile Lys Phe
      100          105          110
Phe Trp Pro Arg Ala Tyr Asn Cys Glu Leu Pro Pro Val Ser Asp Ser
      115          120          125
Arg Phe Ser Met Val Ala Glu Thr Thr His Arg Ile Gly Leu Gly Asn
      130          135          140
Asp Lys Ala Leu Leu Arg Asp Leu Ser Ala Glu Ile Ser Trp Ala Lys
      145          150          155          160
Val Ser Asn Val Pro Thr Asp Gln Tyr Ala Ser Leu Ala Arg Ala Glu
      165          170          175
Gly Arg Val Val Ala Gly Val Ser Ala Thr Asp Val Gly Arg
      180          185          190

```

<210> 295  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

```

<400> 295
ttcatatcag gcagtaccgc agtccatgcg atcaacaacg tcagcgtatc tttcacccat
60
tctggagtgc accttctcat gggagaaagc ggatcaggaa aaagcaccct catcaatctc
120
ctagctggtc tggatacccc agattcgggg tccgtctacg cagaaggcgt caccgtatct
180
gatcagagcg aggcgagcag agcccaattt cgattacgcc acatcgccgt catcttccag
240
gacgacaacc tcatcgctga gttgaccaat accgagaata ttgcgctacc cctgtgggcg
300
cagggcacat cgaagtccga tgccactgaa atcgcccacg aagccatgcg aaaactagga
360
atcgagtcac tgggcagacg ctaccccggc gaggtctcgg gtggccaacg gcaacgc
417

```

<210> 296  
 <211> 139  
 <212> PRT  
 <213> Homo sapiens

```

<400> 296
Phe Ile Ser Gly Ser Thr Arg Val His Ala Ile Asn Asn Val Ser Val
      1           5           10           15
Ser Phe Thr His Ser Gly Val His Leu Leu Met Gly Glu Ser Gly Ser

```



20 25 30  
 Gly Lys Ser Thr Leu Ile Asn Leu Leu Ala Gly Leu Asp Thr Pro Asp  
 35 40 45  
 Ser Gly Ser Val Tyr Ala Glu Gly Val Thr Val Ser Asp Gln Ser Glu  
 50 55 60  
 Ala Ser Arg Ala Gln Phe Arg Leu Arg His Ile Ala Val Ile Phe Gln  
 65 70 75 80  
 Asp Asp Asn Leu Ile Ala Glu Leu Thr Asn Thr Glu Asn Ile Ala Leu  
 85 90 95  
 Pro Leu Trp Ala Gln Gly Thr Ser Lys Ser Asp Ala Thr Glu Ile Ala  
 100 105 110  
 His Glu Ala Met Arg Lys Leu Gly Ile Glu Ser Leu Gly Arg Arg Tyr  
 115 120 125  
 Pro Gly Glu Val Ser Gly Gly Gln Arg Gln Arg  
 130 135

<210> 297  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<400> 297  
 tacaccatcg gtgaccagat tgtcgaagct ctgcaggtgc actcgaagat gtccgacaag  
 60  
 gacgcttggg cgcgtgccat cgagctgctc gacttggtgg ggattccgaa tcccagagtg  
 120  
 cgtgccaaag cttttccgca cgagttttcc ggtggcatga ggcaacgagt cgtcatcgcc  
 180  
 atggccatcg cgaacgaccc tgacctcatc atcgccgacg agccgacgac ggccctcgac  
 240  
 gtgaccatcc aggcccagat tctcgatttg ctgcgcgtag cccagcgtga aacccatgcg  
 300  
 ggcgtcgtta tgatcaccca cgacctcggt gtggtagctg gtctggctga cagggttgcc  
 360  
 gtgatgtatg ccggacgc  
 378

<210> 298  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens

<400> 298  
 Tyr Thr Ile Gly Asp Gln Ile Val Glu Ala Leu Gln Val His Ser Lys  
 1 5 10 15  
 Met Ser Asp Lys Asp Ala Trp Ala Arg Ala Ile Glu Leu Leu Asp Leu  
 20 25 30  
 Val Gly Ile Pro Asn Pro Glu Val Arg Ala Lys Ala Phe Pro His Glu  
 35 40 45  
 Phe Ser Gly Gly Met Arg Gln Arg Val Val Ile Ala Met Ala Ile Ala  
 50 55 60  
 Asn Asp Pro Asp Leu Ile Ile Ala Asp Glu Pro Thr Thr Ala Leu Asp  
 65 70 75 80  
 Val Thr Ile Gln Ala Gln Ile Leu Asp Leu Leu Arg Val Ala Gln Arg

85 90 95  
 Glu Thr His Ala Gly Val Val Met Ile Thr His Asp Leu Gly Val Val  
 100 105 110  
 Ala Gly Leu Ala Asp Arg Val Ala Val Met Tyr Ala Gly Arg  
 115 120 125

<210> 299  
 <211> 368  
 <212> DNA  
 <213> Homo sapiens

<400> 299  
 gtgcacggtt tcgttggcat gcgcaatgac cgggagaact tgcgttttga tccgagactt  
 60  
 ccagcccaat ggacgtcgat caaacaccac atgctcattg gcgactctca catgctcggtt  
 120  
 ttcttggaac gtgacgccat tacgttccag attctgtcgg gccatgaccg cgacgtgaca  
 180  
 gtgcgcggtg agctctacca cattgggggtt gagccggtga gggtgccggtt gtccgatcag  
 240  
 gggccggtgc gtcctagcct gcgcggttacc catccgatct cgggggttgcg tcgagctgac  
 300  
 ggttctctta tcaactgcaga agttcccggc agcattgctg agacgattgg gtcttctccg  
 360  
 atctcgac  
 368

<210> 300  
 <211> 122  
 <212> PRT  
 <213> Homo sapiens

<400> 300  
 Val His Gly Phe Val Gly Met Arg Asn Asp Arg Glu Asn Leu Arg Phe  
 1 5 10 15  
 Asp Pro Arg Leu Pro Ala Gln Trp Thr Ser Ile Lys His His Met Leu  
 20 25 30  
 Ile Gly Asp Ser His Met Leu Val Phe Leu Glu Arg Asp Ala Ile Thr  
 35 40 45  
 Phe Gln Ile Leu Ser Gly His Asp Arg Asp Val Thr Val Arg Gly Glu  
 50 55 60  
 Leu Tyr His Ile Gly Val Glu Pro Val Arg Val Pro Leu Ser Asp Gln  
 65 70 75 80  
 Gly Pro Leu Arg Pro Ser Leu Arg Val Thr His Pro Ile Ser Gly Leu  
 85 90 95  
 Arg Arg Ala Asp Gly Ser Leu Ile Thr Ala Glu Val Pro Gly Ser Ile  
 100 105 110  
 Ala Glu Thr Ile Gly Ser Ser Pro Ile Ser  
 115 120

<210> 301  
 <211> 456  
 <212> DNA  
 <213> Homo sapiens

<400> 301  
 ggccgggtta ttgcccgccc gtttgtcggg gaaaccggc agaccttcga gcgcaccggc  
 60  
 aaccggcgcg actattccgt accgccgccc gaaccgacct tgctcgacag gcttacggac  
 120  
 gcgggcccga cggatgatgc aatcggcaag attggtgata tctacgcgca caaaggcgtg  
 180  
 tctcaggtgc gtaaggcaat ggcaatattg gccttggttcg atgaaacact cattgccatg  
 240  
 gacgacgcgc aggacggcga tctggtcttc accaacttcg tggatttcga catgctctac  
 300  
 gggcatcgca gggatgtgcc cggctatgcc gccgcgctcg aggctttcga ccggaggctg  
 360  
 ccggaagcca tggcgaaatt gcggacgggc gatcttctga tcttgacagc cgatcatggc  
 420  
 tgcgacccga ccctcaaggg aaccgaccac acgcgt  
 456

<210> 302  
 <211> 152  
 <212> PRT  
 <213> Homo sapiens

<400> 302  
 Gly Arg Val Ile Ala Arg Pro Phe Val Gly Glu Thr Arg Gln Thr Phe  
 1 5 10 15  
 Glu Arg Thr Gly Asn Arg Arg Asp Tyr Ser Val Pro Pro Pro Glu Pro  
 20 25 30  
 Thr Leu Leu Asp Arg Leu Thr Asp Ala Gly Arg Thr Val Ile Ala Ile  
 35 40 45  
 Gly Lys Ile Gly Asp Ile Tyr Ala His Lys Gly Val Ser Gln Val Arg  
 50 55 60  
 Lys Ala Met Ala Ile Leu Ala Leu Phe Asp Glu Thr Leu Ile Ala Met  
 65 70 75 80  
 Asp Asp Ala Gln Asp Gly Asp Leu Val Phe Thr Asn Phe Val Asp Phe  
 85 90 95  
 Asp Met Leu Tyr Gly His Arg Arg Asp Val Pro Gly Tyr Ala Ala Ala  
 100 105 110  
 Leu Glu Ala Phe Asp Arg Arg Leu Pro Glu Ala Met Ala Lys Leu Arg  
 115 120 125  
 Thr Gly Asp Leu Leu Ile Leu Thr Ala Asp His Gly Cys Asp Pro Thr  
 130 135 140  
 Leu Lys Gly Thr Asp His Thr Arg  
 145 150

<210> 303  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<400> 303  
 nncgtgggca tcgaggagtt cctcgacatg aagtatcacg cgacgccgat tcacgtcgc  
 60

tgacagcggg tttccggaac acatcagcgt tcagacagga gcgaggagac catgtacctg  
 120  
 ggtgctcagc tgttcagtga cagcgagtac gagcagcgcc tgagacgtgt ccgtgagctc  
 180  
 atggaccgtc aggggtctgtc ggcgatcatc gtcaccgatc cggccaacat cttctatctg  
 240  
 atcggttaca acgcctggtc gttctacacc ccgcagatgc tgttcgtgcc gatcgacgga  
 300  
 gagatgggcc tctacgctcg cgagatggat cgcattggcg acatcngcac gacgtcgttg  
 360  
 cccgccgatc agatcgtcgg ttaccgggag agttatgtgc ac  
 402

<210> 304  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 304  
 Met Tyr Leu Gly Ala Gln Leu Phe Ser Asp Ser Glu Tyr Glu Gln Arg  
 1 5 10 15  
 Leu Arg Arg Val Arg Glu Leu Met Asp Arg Gln Gly Leu Ser Ala Ile  
 20 25 30  
 Ile Val Thr Asp Pro Ala Asn Ile Phe Tyr Leu Ile Gly Tyr Asn Ala  
 35 40 45  
 Trp Ser Phe Tyr Thr Pro Gln Met Leu Phe Val Pro Ile Asp Gly Glu  
 50 55 60  
 Met Val Leu Tyr Ala Arg Glu Met Asp Arg Met Ala His Ile Xaa Thr  
 65 70 75 80  
 Thr Ser Leu Pro Ala Asp Gln Ile Val Gly Tyr Pro Glu Ser Tyr Val  
 85 90 95  
 His

<210> 305  
 <211> 375  
 <212> DNA  
 <213> Homo sapiens

<400> 305  
 nnacgcgtcg gttccgcac gagcgaccgg atcgcatcga cgagcacgct gcaccagtgc  
 60  
 gtgtcgtcct ggcgaatatg ggcgatcagc cggtacagtt cgggatcgtc gtcacctcg  
 120  
 gccgccattt cggatgcgac acgcgcgcct gcgcgctcgg cctccagcaa ctcgtcgagc  
 180  
 gtcgccacca gcgcggcgcg atcttcatgc ggagtcagat cggcgcgggc gtcaggcccg  
 240  
 tcgccatgcg tcggaatcga catgcagcac cctcctgcca ggatcgatgg cgtaatacgt  
 300  
 gcgacggtag acggcgcggtg ttgcacgaac gtgcaaata gcgcgtgcct cgtgccatat  
 360  
 acgtcacatc atatg  
 375

<400> 307  
actagtctctg gccgctcccc tggggctttg ggtaacaatt gtcagcccca cccatcctag  
60  
ggttaggaag gctattctct ttggccactc tcatacctaag acctatttgg agaacctctg  
120  
gggtttgagt ctttttttca gcagaatgag gcttgatccc gcattatagc acctcgcaca  
180  
tttgatgtct cttcttctca cccactcacc ccaccctggg gggtggggca aaaaagtggc  
240  
tcaaagctgc ggttcagagt tccttgtaaa caaggctcct cctcactgt cctcaccctg  
300  
ctccagcaga gggagcagcg gaaggaccac tctgctgcag ccatgcttgt ttctaacca  
360  
gcagaactgg acataatggg aacagggtct gaagacaatc aatccagggc tgcagtgggt  
420  
gctgagtctg gggaagcctc cacctggagg ggcagctggg cagtggcagc tcccttgga  
480  
tggctcagcc tctggacatc accccaccca accagagccc tggctcttgc tggatgtcca  
540  
cagatgagtg cctgggattg gtctcagcca ctatgggggg gatgtgcagg gagaggtgat  
600  
gagggagtga gcaggactgt ctatgtgcct ctgtcctcat cctgaggctt ggggtctgaaa  
660  
ttggtgctgc agcactggca cgcgt  
685

<210> 308  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 308  
 Met Leu Val Ser Asn Pro Ala Glu Leu Asp Ile Met Gly Thr Gly Ser  
 1 5 10 15  
 Glu Asp Asn Gln Ser Arg Ala Ala Val Gly Ala Glu Ser Gly Glu Ala  
 20 25 30  
 Ser Thr Trp Arg Gly Ser Trp Ala Val Ala Ala Pro Leu Glu Trp Leu  
 35 40 45  
 Ser Leu Trp Thr Ser Pro His Pro Thr Arg Ala Leu Ala Leu Ala Gly  
 50 55 60  
 Cys Pro Gln Met Ser Ala Trp Asp Trp Ser Gln Pro Leu Trp Gly Gly  
 65 70 75 80  
 Cys Ala Gly Arg Gly Asp Glu Gly Val Ser Arg Thr Val Tyr Val Pro  
 85 90 95  
 Leu Ser Ser Ser  
 100

<210> 309  
 <211> 432  
 <212> DNA  
 <213> Homo sapiens

<400> 309  
 caggctcgta ctattcgtat ccctgtgcat atggctcgagg tcatcaataa gctggctcgc  
 60  
 gtccagcgtc agatgctcca ggacctaggt cgtgagccca ccccggaaga gcttgccaac  
 120  
 gaactcgata tgaccgcaga gaaggtcatt gaggtgcaga aatacgggtcg cgagccgatac  
 180  
 tcgctgcata cccactggg tgaggatggc gattctgagt tcggtgacct tattgaggat  
 240  
 tccgaggcca tcgtgccagc agacgccgtc aacttcaccc tggttcagga gcagctgcat  
 300  
 gatgtcctcg ataccttgct cgagcgagag gccggtgtcg tgcgatgcg attcggcttg  
 360  
 accgacggac agcccaagac cctggatgag atcggcaaag tctacggtgt tactcgggag  
 420  
 cgcacccgcc ag  
 432

<210> 310  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens

<400> 310  
 Gln Ala Arg Thr Ile Arg Ile Pro Val His Met Val Glu Val Ile Asn  
 1 5 10 15  
 Lys Leu Ala Arg Val Gln Arg Gln Met Leu Gln Asp Leu Gly Arg Glu

WO 00/58473

```

                20          25          30
Pro Thr Pro Glu Glu Leu Ala Asn Glu Leu Asp Met Thr Ala Glu Lys
                35          40          45
Val Ile Glu Val Gln Lys Tyr Gly Arg Glu Pro Ile Ser Leu His Thr
                50          55          60
Pro Leu Gly Glu Asp Gly Asp Ser Glu Phe Gly Asp Leu Ile Glu Asp
65                70          75          80
Ser Glu Ala Ile Val Pro Ala Asp Ala Val Asn Phe Thr Leu Leu Gln
                85          90          95
Glu Gln Leu His Asp Val Leu Asp Thr Leu Ser Glu Arg Glu Ala Gly
                100          105          110
Val Val Ser Met Arg Phe Gly Leu Thr Asp Gly Gln Pro Lys Thr Leu
                115          120          125
Asp Glu Ile Gly Lys Val Tyr Gly Val Thr Arg Glu Arg Ile Arg Gln
                130          135          140

```

<210> 311  
 <211> 358  
 <212> DNA  
 <213> Homo sapiens

```

<400> 311
acgcgtatcg aaaatatccc tccattatt accgctcgcc ctgaactgat ggctcatgaa
60
ctgacgccag aatctcttga tgcgagcctg gagtgggccc atgtggtggt cattggtcct
120
ggactgggac aacaagcgtg gggcaaaaaa gcgctacaaa aggtcgagaa ttgtcgtaaa
180
ccgatgctgt gggatgccga cgcgcttaac cttctggcaa tcaatcctga taaacgtcac
240
aatcgcatcc tgacgccaca ccccggcgag gccgcgcggc tgcttagctg cagcgtcgca
300
gaaattgaaa acgatcgctt acttntctgc gcacgtctgg taaaacggta acccgagt
358

```

<210> 312  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

```

<400> 312
Thr Arg Ile Glu Asn Ile Pro Pro Ile Ile Thr Ala Arg Pro Glu Leu
1          5          10          15
Met Ala His Glu Leu Thr Pro Glu Ser Leu Asp Ala Ser Leu Glu Trp
                20          25          30
Ala Asp Val Val Val Ile Gly Pro Gly Leu Gly Gln Gln Ala Trp Gly
                35          40          45
Lys Lys Ala Leu Gln Lys Val Glu Asn Cys Arg Lys Pro Met Leu Trp
50          55          60
Asp Ala Asp Ala Leu Asn Leu Leu Ala Ile Asn Pro Asp Lys Arg His
65          70          75          80
Asn Arg Ile Leu Thr Pro His Pro Gly Glu Ala Ala Arg Leu Leu Ser
                85          90          95
Cys Ser Val Ala Glu Ile Glu Asn Asp Arg Leu Leu Xaa Cys Ala Arg

```

100 105 110  
Leu Val Lys Arg  
115  
  
<210> 313  
<211> 347  
<212> DNA  
<213> Homo sapiens  
  
<400> 313  
ncaactgaaa gcattgagat gagcgacgtg ctgtccccct tccacccac caaggccaac  
60  
acccctggtg gcgaaccgcg caccatccgc acctogaacg cgcacatcat tgccgtcacc  
120  
agtggcaaag gcggcgtggg caagaccttt gtctccgcca acctggccgc cgcgctgacc  
180  
cgcttgggac tgcgctgct ggtactggac gccgacctgg gcctggccaa cttggacgtg  
240  
gtgctgaacc tctaccccaa ggtgacgtg cacgatgtgt tcaccggcaa ggcctcgctg  
300  
caagacgcgg tggtcacggc ccccggcggc ttccatgtgc tgctagc  
347

<210> 314  
<211> 115  
<212> PRT  
<213> Homo sapiens

<400> 314  
Xaa Thr Glu Ser Ile Glu Met Ser Asp Val Leu Ser Pro Phe His Pro  
1 5 10 15  
Thr Lys Ala Asn Thr Pro Gly Gly Glu Pro Arg Thr Ile Arg Thr Ser  
20 25 30  
Asn Ala His Ile Ile Ala Val Thr Ser Gly Lys Gly Gly Val Gly Lys  
35 40 45  
Thr Phe Val Ser Ala Asn Leu Ala Ala Ala Leu Thr Arg Leu Gly Leu  
50 55 60  
Arg Val Leu Val Leu Asp Ala Asp Leu Gly Leu Ala Asn Leu Asp Val  
65 70 75 80  
Val Leu Asn Leu Tyr Pro Lys Val Thr Leu His Asp Val Phe Thr Gly  
85 90 95  
Lys Ala Ser Leu Gln Asp Ala Val Val Thr Ala Pro Gly Gly Phe His  
100 105 110  
Val Leu Leu  
115

<210> 315  
<211> 544  
<212> DNA  
<213> Homo sapiens

<400> 315  
nnacgcgttc gtcaacagga aaacaacaac ggcttctcgc tggagggaac catgcttgcc  
60



gaagatatct acgcgatcat gctgttttca tcgctcatcc tggtcgtccc ggggccatcc  
 120  
 aacaccttgc tgctcagcgc ccgtttccat ttcggctcgc tgcgggcggc gcccttcatc  
 180  
 ctgcttgagg cggtgggcta ctcgctatcc atttcggcat ggggctgggt attggcgcgc  
 240  
 ctgtccgaga gcaatccatg gatcatcagt ctgaccaagg cactctgcgc gctatatgtg  
 300  
 gcgcttctgg cggtgaagac ctggaatgcc ntcgatccgc agtgcggggc cggttaacttc  
 360  
 cgccatgggc ccttgcccct gttegtggca accctgtcga acccgaaggc gctgatcttc  
 420  
 gccagcgtga tctttcccgg caaggcgttc ctcgacttct ggaacaacta cacgatctcg  
 480  
 ctgctggcct tcctggttgt gctggcgccc atcgggatgc tttgggtcgg gctggggggc  
 540  
 ggta  
 544

<210> 316  
 <211> 159  
 <212> PRT  
 <213> Homo sapiens

<400> 316  
 Ile Tyr Ala Ile Met Leu Phe Ser Ser Leu Ile Leu Val Val Pro Gly  
 1 5 10 15  
 Pro Ser Asn Thr Leu Leu Leu Ser Ala Arg Phe His Phe Gly Ser Leu  
 20 25 30  
 Arg Ala Ala Pro Phe Ile Leu Leu Glu Ala Leu Gly Tyr Ser Leu Ser  
 35 40 45  
 Ile Ser Ala Trp Gly Trp Val Leu Ala Arg Leu Ser Glu Ser Asn Pro  
 50 55 60  
 Trp Ile Ile Ser Leu Thr Lys Ala Leu Cys Ala Leu Tyr Val Ala Leu  
 65 70 75 80  
 Leu Ala Val Lys Thr Trp Asn Ala Xaa Asp Pro Gln Cys Gly Ala Gly  
 85 90 95  
 Asn Phe Arg His Gly Pro Leu Pro Leu Phe Val Ala Thr Leu Ser Asn  
 100 105 110  
 Pro Lys Ala Leu Ile Phe Ala Ser Val Ile Phe Pro Gly Lys Ala Phe  
 115 120 125  
 Leu Asp Phe Trp Asn Asn Tyr Thr Ile Ser Leu Leu Ala Phe Leu Val  
 130 135 140  
 Val Leu Ala Pro Ile Gly Met Leu Trp Val Gly Leu Gly Ala Gly  
 145 150 155

<210> 317  
 <211> 343  
 <212> DNA  
 <213> Homo sapiens

<400> 317  
 nggtcagcct ctcgcccagg caattctctt aagatacatg agctgctatg agtaccaaag  
 60

ccagagggttt gtccactgag agaagcacat tggaaagggg ggcgtggggc tgggactgtg  
120  
tggcacttta tgcacggggg gggcctaagg gggnggtcc accaaccatg cactgngggg  
180  
ggggtgtggg taacatgccg tgcattttgg ggggtgtgcca tgagtggcac accatggggg  
240  
tggcatgtgg ggcattgtatg catgtggtgt tggcgcagca aactcagctc ttacctggct  
300  
ggggccagcc tctaaaactt ctcacattgg gctcccttct gac  
343

<210> 318  
<211> 98  
<212> PRT  
<213> Homo sapiens

<400> 318  
Met Ser Thr Lys Ala Arg Gly Leu Ser Thr Glu Arg Ser Thr Leu Glu  
1 5 10 15  
Arg Gly Ala Trp Ala Trp Asp Cys Val Ala Leu Tyr Ala Arg Gly Gly  
20 25 30  
Pro Lys Gly Gly Gly Pro Pro Thr Met His Xaa Gly Trp Gly Val Gly  
35 40 45  
Asn Met Pro Cys Ile Leu Gly Val Cys His Glu Trp His Thr Met Gly  
50 55 60  
Val Ala Cys Gly Ala Cys Met His Val Val Leu Ala Gln Gln Thr Gln  
65 70 75 80  
Leu Leu Pro Gly Trp Gly Gln Pro Leu Lys Leu Leu Thr Leu Gly Ser  
85 90 95  
Leu Leu

<210> 319  
<211> 429  
<212> DNA  
<213> Homo sapiens

<400> 319  
gaattctcga tgtaccccct cccggcagtc ctattctcga gctgagcggg cacagtggcc  
60  
ccgttaacag tgtggcttgg ggtccacca gccagagcac gttgcgaaat ggacctagta  
120  
aggcatgat atgtacagga ggcgacgatg ctcaagtgcct cgtatatgat ctgactagct  
180  
caactcttcg aacagcatct gctcaaggac ggcgctctcg aaacagtcca tataaacaaa  
240  
gccattcacc gggaatagac ggatggcgtg tcggcgcaga agtgccggtg ctcgcttata  
300  
cggccccgtc tatggtcaac aatgctagct ggctcggcat gcctgcgcca tcaaaacgca  
360  
catcgctaca gagcaaacac cgcagccttt accgcagctt actcagttag tggactgagt  
420  
atacgtcen  
429



1	5	10	15
Pro Asn His Arg	Glu Thr Leu Arg	Ser Leu Gly Leu	Lys Arg Ile Gly
20	25	30	
Asp Thr Val Ile	Lys Glu Asp Arg	Pro Glu Phe Arg	Gly Met Val Arg
35	40	45	
Thr Val Arg His	Leu Val Thr Met	Glu Glu Val Asp	
50	55	60	

<210> 323  
 <211> 468  
 <212> DNA  
 <213> Homo sapiens

<400> 323  
 ntccggaccc gctgtggcca cgtattctgc cgttcctgta ttgctaccag tctaaagaac  
 60  
 aacaagtgga cctgtcctta ttgccgggca tatcttcctt cagaaggagt tccagcaact  
 120  
 gatgtagcca aaagaatgaa atcagagtat aagaactgcg ctgagtgtga caccctgggt  
 180  
 tgcctcagtg aaatgagggc acatattcgg acttgtcaga agtacataga taagtatgga  
 240  
 ccactacaag aacttgagga gacagcagca aggtgtgtat gtcccttttg tcagagggaa  
 300  
 ctgtatgaag acagcttgct ggatcattgt attactcatc acagatcgga acggaggcct  
 360  
 gtgttctgtc cactttgcca ttttaataccc gatgagaatc caagcagctt cagtggcagt  
 420  
 ttaataagac atctgcaagt tagtcacact ttggtttatg atgatttc  
 468

<210> 324  
 <211> 156  
 <212> PRT  
 <213> Homo sapiens

1	5	10	15
Xaa Arg Thr Arg	Cys Gly His Val	Phe Cys Arg Ser	Cys Ile Ala Thr
20	25	30	
Ser Leu Lys Asn	Asn Lys Trp Thr	Cys Pro Tyr Cys	Arg Ala Tyr Leu
35	40	45	
Pro Ser Glu Gly	Val Pro Ala Thr	Asp Val Ala Lys	Arg Met Lys Ser
50	55	60	
Glu Tyr Lys Asn	Cys Ala Glu Cys	Asp Thr Leu Val	Cys Leu Ser Glu
65	70	75	80
Met Arg Ala His	Ile Arg Thr Cys	Gln Lys Tyr Ile	Asp Lys Tyr Gly
85	90	95	
Pro Leu Gln Glu	Leu Glu Glu Thr	Ala Ala Arg Cys	Val Cys Pro Phe
100	105	110	
Cys Gln Arg Glu	Leu Tyr Glu Asp	Ser Leu Leu Asp	His Cys Ile Thr
115	120	125	
His His Arg Ser	Glu Arg Arg Pro	Val Phe Cys Pro	Leu Cys His Leu
Ile Pro Asp Glu	Asn Pro Ser Ser	Phe Ser Gly Ser	Leu Ile Arg His

WO 00/58473

130 135 140  
 Leu Gln Val Ser His Thr Leu Val Tyr Asp Asp Phe  
 145 150 155

<210> 325  
 <211> 374  
 <212> DNA  
 <213> Homo sapiens

<400> 325  
 acgcgtgaag ggaggacgag gaagtaacgg gaagcacaag gccgctgctg gggagatggc  
 60  
 actggagccc cctaggaagc atctcacagg ctgtggccct tggcacgggg atctggggcc  
 120  
 aggtcgagcg caggtctggg tatcatgcga gtgcgggctc gctggggcgg gaaagagttt  
 180  
 ggagctctgc tcccagggaa tccccactcc cgcagatgac ttgcccgaga gagttctgct  
 240  
 ggtggatttt gatggaaatt ctatttgatc gcacccactt ggttcactgt gtgcttcggg  
 300  
 gtccccaggt tttaggtgct tcatgccctg ctgggaacga gacacgctcc tgccctcagt  
 360  
 gaatcttcag tcta  
 374

<210> 326  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 326  
 Met Lys His Leu Lys Pro Gly Asp Pro Glu Ala His Ser Glu Pro Ser  
 1 5 10 15  
 Gly Cys Asp Gln Ile Glu Phe Pro Ser Lys Ser Thr Ser Arg Thr Leu  
 20 25 30  
 Ser Gly Lys Ser Ser Ala Gly Val Gly Ile Pro Trp Glu Gln Ser Ser  
 35 40 45  
 Lys Leu Phe Pro Ala Pro Ala Ser Pro His Ser His Asp Thr Gln Thr  
 50 55 60  
 Cys Ala Arg Pro Gly Pro Arg Ser Pro Cys Gln Gly Pro Gln Pro Val  
 65 70 75 80  
 Arg Cys Phe Leu Gly Gly Ser Ser Ala Ile Ser Pro Ala Ala Ala Leu  
 85 90 95  
 Cys Phe Pro Leu Leu Pro Arg Pro Pro Phe Thr Arg  
 100 105

<210> 327  
 <211> 538  
 <212> DNA  
 <213> Homo sapiens

<400> 327  
 cactataaaa tccagtttgg ggcccgtgtt ctttcttatt ggtctgtcag gtgaaaaact  
 60

ccggctgggg gaaaagcgtc cggtgggttg ttggtaaaga gggtagctga tgggctctgg  
 120  
 ggaatggagg atggcgacc ggctgtgggt ggactgtgga aacggggggg ggcagtgccg  
 180  
 gggtagttgt cctgctggtc tggttttggg atcctgggct ggagaaatgc gatccaaaag  
 240  
 agctcgggat gggctcagag cgaccacga aaataccagg ggccaagtaa aatgaacca  
 300  
 ccctttaaca gtgcacaaag cgctggcaca cgggccacgt ctggtgacgc aggctgcccg  
 360  
 aagcgctcca accattttgc aaacctggga gagcaagagg ggctctgcag gtctagccgc  
 420  
 cgccctgtc ccactctggc cagccggagt tttcaccta cagaccaata ggaaagaaca  
 480  
 cgggccccaa actggatttt atagtctgag ctctcagcat ctaaggaatg atatgcc  
 538

<210> 328  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 328  
 Met Val Gly Ala Leu Arg Ala Ala Cys Val Thr Arg Arg Gly Pro Cys  
 1 5 10 15  
 Ala Ser Ala Leu Cys Thr Val Lys Gly Trp Val His Phe Thr Trp Pro  
 20 25 30  
 Leu Val Phe Ser Trp Val Ala Leu Ser Pro Ser Arg Ala Leu Leu Asp  
 35 40 45  
 Arg Ile Ser Pro Ala Gln Asp Pro Lys Thr Arg Pro Ala Gly Gln Leu  
 50 55 60  
 Pro Arg His Cys His Pro Pro Phe Pro Gln Ser Thr His Ser Arg Cys  
 65 70 75 80  
 Ala Ile Leu His Ser Pro Glu Pro Ile Thr His Pro Leu Tyr Gln Gln  
 85 90 95  
 Thr Thr Gly Arg Phe Ser Pro Ser Arg Ser Phe Ser Pro Asp Arg Pro  
 100 105 110  
 Ile Gly Lys Asn Thr Gly Pro Lys Leu Asp Phe Ile Val  
 115 120 125

<210> 329  
 <211> 407  
 <212> DNA  
 <213> Homo sapiens

<400> 329  
 tccggagagt tccctcccca ggaattcctt ctaagaatcc atgtggaaat agagcctgaa  
 60  
 gctcttcagt cttctctgct cactgagcag tgttttcctg atacccttg taccctgcca  
 120  
 gcagcctcgt tatgactcct aactccattg cctccatgg cccctgggag ctctctctct  
 180  
 cttctcttcc aggtagtaga gcactgcttc tggcttcttg tgcacagaag ggtttccac  
 240

```
<210> 330
<211> 113
<212> PRT
<213> Homo sapiens
```

```
<210> 331
<211> 523
<212> DNA
<213> Homo sapiens
```

601

<210> 332  
 <211> 174  
 <212> PRT  
 <213> Homo sapiens

<400> 332  
 Cys Thr Glu Pro Ala Gly Leu Glu Gly Leu Ala Gly Leu Val Val Arg  
 1 5 10 15  
 Thr Ala Asp Glu Ser Thr Gly Pro His Pro Gly Ala Thr Phe Ala Glu  
 20 25 30  
 Ala Met Glu Ser Ile Gly Ala Ser Tyr Asp Gly Ser Ala Gly Leu Ala  
 35 40 45  
 Gly Ser His Val Gly Val Asp Val Pro Val Thr Arg Phe Asp Ala Ala  
 50 55 60  
 Ala Glu Leu Phe Val Glu Leu Leu Asn Thr Thr Ser Leu Val Glu Glu  
 65 70 75 80  
 Asp Ile Ala Arg Gln Ile Asp Ala Ala Arg Ala Ser Leu Ala Gln Thr  
 85 90 95  
 Ser Gln Arg Gly Ser Ala Leu Ala Glu Met Ala Ala Ala Arg Ala Leu  
 100 105 110  
 Trp Pro Val Gly Ser Arg Ser Ser Leu Pro Thr Ile Gly Thr Leu Ser  
 115 120 125  
 Ser Val Glu Lys Leu Asn Ala Ala Ala Arg Glu Phe Trp Ala Ala  
 130 135 140  
 His Trp Thr Ile Ser Asp Ala Val Leu Val Val Ala Gly Glu Gly Val  
 145 150 155 160  
 Glu Asp Leu Asp Leu Ser Ile Phe Lys Glu Trp Thr Thr Ser  
 165 170

<210> 333  
 <211> 372  
 <212> DNA  
 <213> Homo sapiens

<400> 333  
 nntgttcgtc gtgtcgaccc ggaactcaag gccagggcga tgacgggtgaa ggtgcccaacc  
 60  
 gatccccatc accgcccggg agttccattg aagtctgcga aggaccgtat ggacatcatt  
 120  
 tctgcttacc gagaactcgg aagctatcgc gccgcagccg aggtgtgcgg caccacccac  
 180  
 aagaccgtca agcgggtggt cgatcggttt gaagccggcg atccacccac cgggtggcaag  
 240  
 gaacgggccc gcaactacga tgcgggtggc cagctcgtcg cgcagcgagt cgcgcggtca  
 300  
 cacggccgga tcaactgcaa acggctgcta ccggtagcgc gagcggcagg atatgagggg  
 360  
 tcggcgcgga at  
 372

<210> 334  
 <211> 88  
 <212> PRT



```

<400> 334
Met Asp Ile Ile Ser Ala Tyr Arg Glu Leu Gly Ser Tyr Arg Ala Ala
 1          5          10          15
Ala Glu Val Cys Gly Thr Thr His Lys Thr Val Lys Arg Val Val Asp
          20          25          30
Arg Phe Glu Ala Gly Asp Pro Pro Thr Gly Gly Lys Glu Arg Ala Arg
          35          40          45
Asn Tyr Asp Ala Val Ala Gln Leu Val Ala Gln Arg Val Ala Arg Ser
          50          55          60
His Gly Arg Ile Thr Ala Lys Arg Leu Leu Pro Val Ala Arg Ala Ala
65          70          75          80
Gly Tyr Glu Gly Ser Ala Arg Asn
          85

```

```
<210> 335
<211> 356
<212> DNA
<213> Homo sapiens
```

<400> 335  
gtgcacgcct tgctgggcga gggcgatgcg cctgcgcgca ccttcgtgga cggtaacctt  
60  
ggcaggggag ggcattcgcg gctcatcctg cagcgggttg ggccgcaagg ccgcctggtg  
120  
gcgttcgaca aggacaccga agccattcaa gcagcggcgc gcatcacgga tgcgcgcttt  
180  
tccatcnggc accagggggt cagccatctc ggggaactgc ccgccgccag cgtgtccggt  
240  
gtgctgctgg acctgggcgt gagctccccg cagatcgacg acccccagcg cgggttcagt  
300  
tttcgtttcg atggtccgct ggacatgcgc atggacacca ctccgatgca tggatg  
356

```
<210> 336
<211> 118
<212> PRT
<213> Homo sapiens
```

<400> 336															
Val	His	Ala	Leu	Leu	Gly	Glu	Gly	Asp	Ala	Pro	Ala	Arg	Thr	Phe	Val
1				5					10					15	
Asp	Gly	Thr	Phe	Gly	Arg	Gly	Gly	His	Ser	Arg	Leu	Ile	Leu	Gln	Arg
			20					25					30		
Leu	Gly	Pro	Gln	Gly	Arg	Leu	Val	Ala	Phe	Asp	Lys	Asp	Thr	Glu	Ala
		35					40					45			
Ile	Gln	Ala	Ala	Ala	Arg	Ile	Thr	Asp	Ala	Arg	Phe	Ser	Ile	Xaa	His
	50					55					60				
Gln	Gly	Phe	Ser	His	Leu	Gly	Glu	Leu	Pro	Ala	Ala	Ser	Val	Ser	Gly
65					70					75					80
Val	Leu	Leu	Asp	Leu	Gly	Val	Ser	Ser	Pro	Gln	Ile	Asp	Asp	Pro	Gln
				85					90					95	
Arg	Gly	Phe	Ser	Phe	Arg	Phe	Asp	Gly	Pro	Leu	Asp	Met	Arg	Met	Asp

100 105 110  
 Thr Thr Pro Met His Gly  
 115

<210> 337  
 <211> 447  
 <212> DNA  
 <213> Homo sapiens

<400> 337  
 cagcctctct ccgaccgcgc cggtgtgaag cacgggcatg ccggtgtgca agtggcacca  
 60  
 cagccaaaac agcgagctca cacttcaaac tccttcaaag accccaggcc tctgtaagaa  
 120  
 ccgctcatct ctgtgcccac agctcccccg cttccatgtg acccagaaat ggaaccacgc  
 180  
 agcagaggcg gggatcacag gtgaagcagc tgtgaacatt tgcttcaggc ttctgtgcaa  
 240  
 acaggcgcca tcatgtcagc cggtgagcag gagcaacgtg cgtgggtcag ggggtggcca  
 300  
 cacgtccaac tttataagaa atgacagatt ccctgatggc catagggatc tgcagggcca  
 360  
 gcagcaggca taggacttcc ggtggccctg cgtcttcac c aacactgagt attgtcaggg  
 420  
 tttctgtact gtttttacag ccaattg  
 447

<210> 338  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 338  
 Met Pro Val Cys Lys Trp His His Ser Gln Asn Ser Glu Leu Thr Leu  
 1 5 10 15  
 Gln Thr Pro Ser Lys Thr Pro Gly Leu Cys Lys Asn Arg Ser Ser Leu  
 20 25 30  
 Cys Pro Gln Leu Pro Arg Phe His Val Thr Gln Lys Trp Asn His Ala  
 35 40 45  
 Ala Glu Ala Gly Ile Thr Gly Glu Ala Ala Val Asn Ile Cys Phe Arg  
 50 55 60  
 Leu Leu Cys Lys Gln Ala Pro Ser Cys Gln Pro Val Ser Arg Ser Asn  
 65 70 75 80  
 Val Arg Gly Ser Gly Gly Gly His Thr Ser Asn Phe Ile Arg Asn Asp  
 85 90 95  
 Arg Phe Pro Asp Gly His Arg Asp Leu Gln Gly Gln Gln Gln Ala  
 100 105 110

<210> 339  
 <211> 588  
 <212> DNA  
 <213> Homo sapiens

<400> 339

WO 00/58473

tctagaatga agcgctgtat cctagcaccg gcagacgtac caagactatc aagggcgctca  
 60  
 gatcgtttat cctgcagttg ccattcatca gacaaatcca gtggaaccca atggaagaca  
 120  
 ccgacctgca agcgctgatg gccagactcg aattgctaata tgatcgggtc gagcaactta  
 180  
 agagtcaaaa cggactccta ttagctcagg aaaagacctg ggcgcganaa cgcgctcacc  
 240  
 tcattgaaaa aaacgaaatc gcccggcgta aggtcgaatc gatgatttcg cgctgaagg  
 300  
 ccctggagca agactatgag ttaagcaata gcgttacgtg cagatcctcg acaaagaata  
 360  
 ttcgatcatc tgcccccagg aagaacgcag cacctggtga gtgctgcccg ctacctggaa  
 420  
 ggccaaaagg cgtgaaatcc gcagcagcgg caaagtcacg ggtgccgacc gcacgcgcgt  
 480  
 gatggccgcg ctgaacatca cccacgatct gctgcataag caggaacggc ctgacgttca  
 540  
 ggccagcggc tcaacgcgcg agcaagtgcg tgacctgctg gaacgcgt  
 588

<210> 340  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

<400> 340  
 Met Glu Asp Thr Asp Leu Gln Ala Leu Met Ala Arg Leu Glu Leu Leu  
 1 5 10 15  
 Ile Asp Arg Val Glu Gln Leu Lys Ser Gln Asn Gly Leu Leu Leu Ala  
 20 25 30  
 Gln Glu Lys Thr Trp Ala Arg Xaa Arg Ala His Leu Ile Glu Lys Asn  
 35 40 45  
 Glu Ile Ala Arg Arg Lys Val Glu Ser Met Ile Ser Arg Leu Lys Ala  
 50 55 60  
 Leu Glu Gln Asp Tyr Glu Leu Ser Asn Ser Val Thr Cys Arg Ser Ser  
 65 70 75 80  
 Thr Lys Asn Ile Arg Ser Ser Ala Pro Arg Lys Asn Ala Ala Pro Gly  
 85 90 95  
 Glu Cys Cys Pro Leu Pro Gly Arg Pro Lys Gly Val Lys Ser Ala Ala  
 100 105 110  
 Ala Ala Lys Ser Ser Val Pro Thr Ala Ser Pro  
 115 120

<210> 341  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 341  
 ngccgcgcgg cctacctgct gtacctggcc tatgccacct ggcgtgaccg ctcggccttt  
 60  
 gcaatgaacg acacgccgac agttgcgacc gcgcgcagcc tgatcctgcg tggcttcttg  
 120

ctgaacattc ttaaccccaa gctgacaatt ttcttcctgg ccttcctgcc tcaattcgta  
 180  
 acgccaggcg gcaccgcgcc ggccttgag atgctggtac tgagcggcgt gttcatggcg  
 240  
 atgacgcttg cagtgtttgt gctgtatggc ctgttggcga atgtgtttcg tctgtcagtg  
 300  
 gtcgagtcgc cacgtgtgca gaactggctg cgacgcagtt ttgccacggc ctttgccggg  
 360  
 ctgggggtga acctggcggt tgcgcagcgc tgaggacgcg t  
 401

<210> 342

<211> 130

<212> PRT

<213> Homo sapiens

<400> 342

Xaa	Arg	Ala	Ala	Tyr	Leu	Leu	Tyr	Leu	Ala	Tyr	Ala	Thr	Trp	Arg	Asp
1				5					10					15	
Arg	Ser	Ala	Phe	Ala	Met	Asn	Asp	Thr	Pro	Thr	Val	Ala	Thr	Ala	Arg
			20					25					30		
Ser	Leu	Ile	Leu	Arg	Gly	Phe	Leu	Leu	Asn	Ile	Leu	Asn	Pro	Lys	Leu
		35					40					45			
Thr	Ile	Phe	Phe	Leu	Ala	Phe	Leu	Pro	Gln	Phe	Val	Thr	Pro	Gly	Gly
	50					55					60				
Thr	Ala	Pro	Ala	Leu	Gln	Met	Leu	Val	Leu	Ser	Gly	Val	Phe	Met	Ala
65					70				75					80	
Met	Thr	Leu	Ala	Val	Phe	Val	Leu	Tyr	Gly	Leu	Leu	Ala	Asn	Val	Phe
			85					90					95		
Arg	Arg	Ala	Val	Val	Glu	Ser	Pro	Arg	Val	Gln	Asn	Trp	Leu	Arg	Arg
		100						105					110		
Ser	Phe	Ala	Thr	Ala	Phe	Ala	Gly	Leu	Gly	Leu	Asn	Leu	Ala	Phe	Ala
		115					120					125			
Gln	Arg														
															130

<210> 343

<211> 389

<212> DNA

<213> Homo sapiens

<400> 343

gtgttgcgca actacatggc gtccttgccg ttcagcgtgg tcgagtcggc gcgcatcgac  
 60  
 gggtgctcca acttcagat cttctggaag ctgacgccc cgatggcgat gccggcgatg  
 120  
 gcggcgctcg cgaccctgca gttcctgtgg gtgtggaacg acctgctcat cgccaagctc  
 180  
 ttctcacca acgacaaccc cacggtgatc gtcaagctcc aacagctttc cnngggcccc  
 240  
 aaggcccagg gtgcggagct gctgacggcg ggcgccttca tctccatcgt gctacccatg  
 300  
 atcgtcttct tcgtgctcca gaacttcctg gtgcgcggta tgacgtcggg tgccgtcaag  
 360

gggtgaccgc tcaactgcag tggcccggg  
389

<210> 344  
<211> 121  
<212> PRT  
<213> Homo sapiens

<400> 344  
Val Leu Arg Asn Tyr Met Ala Ser Leu Pro Phe Ser Val Val Glu Ser  
1 5 10 15  
Ala Arg Ile Asp Gly Cys Ser Asn Phe Gln Ile Phe Trp Lys Leu Ile  
20 25 30  
Ala Pro Met Ala Met Pro Ala Met Ala Ala Phe Ala Thr Leu Gln Phe  
35 40 45  
Leu Trp Val Trp Asn Asp Leu Leu Ile Ala Lys Leu Phe Leu Thr Asn  
50 55 60  
Asp Asn Pro Thr Val Ile Val Lys Leu Gln Gln Leu Ser Xaa Gly Pro  
65 70 75 80  
Lys Ala Gln Gly Ala Glu Leu Leu Thr Ala Gly Ala Phe Ile Ser Ile  
85 90 95  
Val Leu Pro Met Ile Val Phe Phe Val Leu Gln Asn Phe Leu Val Arg  
100 105 110  
Gly Met Thr Ser Gly Ala Val Lys Gly  
115 120

<210> 345  
<211> 360  
<212> DNA  
<213> Homo sapiens

<400> 345  
ctagtacttt atgctgatgg tgaacgtcgt tacatccttg cccctaaagg catggttgct  
60  
ggtgatgtga tccaatctgg tgaagatgca tcaattaaag taggtaactg cttaccgatg  
120  
cgtaatatcc cagttggtac aacagtacac gctgtagaaa tgaaacctgc taaagggtgca  
180  
caaattgcac gttctgctgg ttcttacagc caaattatag ctcgtgatgg tgcttacggt  
240  
actctacggt tacgtagtgg tgaaatgcgt aaaatccctg ctgagtgtcg tgcaacaatc  
300  
ggtgaagttg gtaatgcaga acatatgcta cgtcaactag gtaaagctgg tgctacgcgt  
360

<210> 346  
<211> 120  
<212> PRT  
<213> Homo sapiens

<400> 346  
Leu Val Leu Tyr Ala Asp Gly Glu Arg Arg Tyr Ile Leu Ala Pro Lys  
1 5 10 15  
Gly Met Val Ala Gly Asp Val Ile Gln Ser Gly Glu Asp Ala Ser Ile

```

          20          25          30
Lys Val Gly Asn Cys Leu Pro Met Arg Asn Ile Pro Val Gly Thr Thr
          35          40          45
Val His Ala Val Glu Met Lys Pro Ala Lys Gly Ala Gln Ile Ala Arg
          50          55          60
Ser Ala Gly Ser Tyr Ser Gln Ile Ile Ala Arg Asp Gly Ala Tyr Val
65          70          75          80
Thr Leu Arg Leu Arg Ser Gly Glu Met Arg Lys Ile Pro Ala Glu Cys
          85          90          95
Arg Ala Thr Ile Gly Glu Val Gly Asn Ala Glu His Met Leu Arg Gln
          100          105          110
Leu Gly Lys Ala Gly Ala Thr Arg
          115          120

```

<210> 347  
 <211> 565  
 <212> DNA  
 <213> Homo sapiens

```

<400> 347
accggtgatg ccaaaggtgc tgtgacaagg ggattcatcg gttcgggcaa ggtcgtcacg
60
gcagctgccg tcatcatgat ttcggtgttc gtcttcttca tccccgaggg catgaacgcc
120
atcaaggaaa tcgccctggc cctggccgtc gggatcctca cggatgcctt cttggtgcgg
180
atgaccctcg tccccggcgt gatggccctg ctaggtgaca aggcattggtg gttgcccggg
240
tggctggatc gacgcctacc ccgcctcgac atcgagggag aagggatcac ccacgaggaa
300
aagctggccg cctggcccac agcggatcac accgaggccc tgcacgccga ggggatcggg
360
gtggaggggc tcttcgaagg cctcgatctg cacgtcgaac cgcgtcaggt gcaagccgtc
420
gtcggatcgc agaacagtgt ctcgcccgtc ctgctggcga tcgggggacg gctgcccttg
480
gatcacggcc ggatgaggtc gggaggattg ctgctaccgc agcgggcttc cagagtgcgt
540
cgggtgacgt ggttcctcga cgcgt
565

```

<210> 348  
 <211> 188  
 <212> PRT  
 <213> Homo sapiens

```

<400> 348
Thr Gly Asp Ala Lys Gly Ala Val Thr Arg Gly Phe Ile Gly Ser Gly
1          5          10          15
Lys Val Val Thr Ala Ala Ala Val Ile Met Ile Ser Val Phe Val Phe
          20          25          30
Phe Ile Pro Glu Gly Met Asn Ala Ile Lys Glu Ile Ala Leu Ala Leu
          35          40          45
Ala Val Gly Ile Leu Thr Asp Ala Phe Leu Val Arg Met Thr Leu Val

```

```

      50      55      60
Pro Ala Val Met Ala Leu Leu Gly Asp Lys Ala Trp Trp Leu Pro Gly
65      70      75      80
Trp Leu Asp Arg Arg Leu Pro Arg Leu Asp Ile Glu Gly Glu Gly Ile
      85      90      95
Thr His Glu Glu Lys Leu Ala Ala Trp Pro Thr Ala Asp His Thr Glu
      100      105      110
Ala Leu His Ala Glu Gly Ile Gly Val Glu Gly Leu Phe Glu Gly Leu
      115      120      125
Asp Leu His Val Glu Pro Arg Gln Val Gln Ala Val Val Gly Ser Gln
      130      135      140
Asn Ser Val Ser Ala Val Leu Leu Ala Ile Gly Gly Arg Leu Pro Leu
      145      150      155      160
Asp His Gly Arg Met Arg Ser Gly Gly Leu Leu Leu Pro Glu Arg Ala
      165      170      175
Ser Arg Val Arg Arg Val Thr Trp Phe Leu Asp Ala
      180      185

```

<210> 349  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

```

<400> 349
ntgctggcca cggataatga ccgtactctg cgtgatgtcg ttgccgctga ccctacccat
60
gagctcgggt cggctaccgc tcatacgttt gcggaacaatt tgccgttcct tcttaaactg
120
ctcgcggcag aagagccact atcgttgcag gctcatccca gtttggcgca agcacaggaa
180
gggtacgggc gggagaatcg caaaggggtg ccattagatg cccagaccg gaattaccac
240
gatcccaacc ataaaccgga gcttattgtt gggctgacgc gattccacgc actagccggc
300
ttccgtgaac cacaacgcac acttgagctt tttgacgcg
339

```

<210> 350  
 <211> 113  
 <212> PRT  
 <213> Homo sapiens

```

<400> 350
Xaa Leu Ala Thr Asp Asn Asp Arg Thr Leu Arg Asp Val Val Ala Ala
1      5      10      15
Asp Pro Thr His Glu Leu Gly Ser Ala Thr Ala His Thr Phe Ala Asp
      20      25      30
Asn Leu Pro Phe Leu Leu Lys Leu Leu Ala Ala Glu Glu Pro Leu Ser
      35      40      45
Leu Gln Ala His Pro Ser Leu Ala Gln Ala Gln Glu Gly Tyr Gly Arg
      50      55      60
Glu Asn Arg Lys Gly Val Pro Leu Asp Ala Pro Asp Arg Asn Tyr His
      65      70      75      80
Asp Pro Asn His Lys Pro Glu Leu Ile Val Gly Leu Thr Arg Phe His

```

	85		90		95										
Ala	Leu	Ala	Gly	Phe	Arg	Glu	Pro	Gln	Arg	Thr	Leu	Glu	Leu	Phe	Asp
	100						105						110		
Ala															

<210> 351  
 <211> 354  
 <212> DNA  
 <213> Homo sapiens

<400> 351  
 gcgcgccccca gtgccgagac ccggggcttc aggagccggc cccgggagag aagagtgcgg  
 60  
 cggcggacgg agaaaacaac tccaaagttg gcgaaaggca ccgcccctac tcccgggctg  
 120  
 ccgcccctc cccgccccca gccctggcat ccagagtacg ggtcgagccc gnggccatgg  
 180  
 agccccctg gggaggcggc accagggagc ctggggccccg gggctccgcc gcgaccccat  
 240  
 cgggtagacc acagaagctc cgggaccctt ccggcacctc tggacagccc aggatgctgt  
 300  
 tggccaccn ntctctctcc tctctcttgg aggcgctctg gcccatccag accg  
 354

<210> 352  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 352  
 Ala Arg Pro Ser Ala Glu Thr Arg Gly Phe Arg Ser Arg Pro Arg Glu  
 1 5 10 15  
 Arg Arg Val Arg Arg Arg Thr Glu Lys Thr Thr Pro Lys Leu Ala Lys  
 20 25 30  
 Gly Thr Ala Pro Thr Pro Gly Leu Pro Pro Pro Pro Arg Pro Gln Pro  
 35 40 45  
 Trp His Pro Glu Tyr Gly Ser Ser Pro Xaa Pro Trp Ser Pro Pro Gly  
 50 55 60  
 Glu Ala Ala Pro Gly Ser Leu Gly Pro Gly Ala Pro Pro Arg Pro His  
 65 70 75 80  
 Arg Val Asp His Arg Ser Ser Gly Thr Leu Pro Ala Pro Leu Asp Ser  
 85 90 95  
 Pro Gly Cys Cys Trp Pro Pro Xaa Pro Pro Pro Pro Pro Trp Arg Arg  
 100 105 110  
 Ser Gly Pro Ser Arg Pro  
 115

<210> 353  
 <211> 1469  
 <212> DNA  
 <213> Homo sapiens

<400> 353



nntcatgaag gcttgaactt gcgtgatctt cagcctgcgg acctggcggg tgacggcggg  
60  
attgagccgg tggacctcgt ggtcggagat gtctctttta tctccttgac gatgatcctt  
120  
gaacccattt cagctgttgt cagccacac ggccctcatgc tgttgctggg gaagcctcaa  
180  
tttgagggtg gttgcaaggc tttgggagcc catggcggtg tcacggaccc ggccctgcgc  
240  
ttgcaggcca tcgcgggtgt catggcagca gcggtagatt tgggttggcg tatgcgtgac  
300  
gagtgcgata gcccgttgcc cgggcaggat ggaaacgttg agcacttcgt cttgctggaa  
360  
cgtacgggtc ggtgacagac gtccgggcat atcatgggccc gctactgtgg tcttgtgaac  
420  
gacacgagcc cttcgagata cgttgctgct gtcacccatg ccacgcggga cgacgtttt  
480  
gacgcggctg ccgaattcat ctctgaaatg gcggggcgag acattgggtg cgcggttccg  
540  
gatgatcagg tgaagccgat gtcaagcaag ctgccaggga tcgatcttga aagcttggga  
600  
gagttcgccc acgaggcgga ggtggctgct gtctttggcg gcgacggcac gatcttgca  
660  
gctgctgaat ggtcattacc tcgccacgtt cccatgattg gcgtcaacct tggccatgct  
720  
ggttttctgg ctgagctgga gcgctccgat atggcggatc tagtgaacaa ggtgtgttcg  
780  
cgcgactaca ccgttgagga tcgcctcgtg cttaaaacca ccgtcaccga gcattccgga  
840  
caacaccgtt ggagttcttt tgccgtcaac gagttgtctc tggaaaaggc agcccggcgg  
900  
cgcattgctg acgttctggc gtctgtcgac gagttgccgg tgcaacgctg gagttgcgac  
960  
gggatcctgg tctcgacccc gaccggatcg acggcctacg cgttctcagc tggcggcccc  
1020  
gtcatgtggc ccgatctcga cgccatgctc atgggtgccgt tgagcgctca cgctctctt  
1080  
gctcgaccgc tggatcatgag ccagctgct cgagtggacc ttgacatcca gccagacggt  
1140  
tcagaatcgg cggttctgtg gtgcgacggg cgccgatcgt gcaccgtacg accgggggaa  
1200  
agaatcaccg tcgtccgcca tcccgaaccgt ctgcgcattg ctctgtctggc cgcgcagccc  
1260  
ttcacatcgc gtctgggtcaa gaagtttgag ctcccgggtca gcgggtggcg tcagggtcgt  
1320  
gaccgtcatc acctagagga gacttcgtga tacgtagtgt gcgaattcgt ggactcggcg  
1380  
tcacgatga gacggtcctc gaaccctcat ccgcgctgac ggcagtcacc ggcgagaccg  
1440  
gcgccggaaa gaccatgggtg gtcaccggg  
1469

&lt;210&gt; 354

&lt;211&gt; 318

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 354

```

Met Gly Arg Tyr Cys Gly Leu Val Asn Asp Thr Ser Pro Ser Arg Tyr
 1           5           10           15
Val Val Val Val Thr His Ala Thr Arg Asp Asp Ala Phe Asp Ala Ala
      20           25           30
Ala Glu Phe Ile Ser Glu Met Ala Gly Arg Asp Ile Gly Cys Ala Val
      35           40           45
Pro Asp Asp Gln Val Lys Pro Met Ser Ser Lys Leu Pro Gly Ile Asp
      50           55           60
Leu Glu Ser Leu Gly Glu Phe Ala His Glu Ala Glu Val Val Val Val
65           70           75           80
Phe Gly Gly Asp Gly Thr Ile Leu Arg Ala Ala Glu Trp Ser Leu Pro
      85           90           95
Arg His Val Pro Met Ile Gly Val Asn Leu Gly His Val Gly Phe Leu
      100          105          110
Ala Glu Leu Glu Arg Ser Asp Met Ala Asp Leu Val Asn Lys Val Cys
      115          120          125
Ser Arg Asp Tyr Thr Val Glu Asp Arg Leu Val Leu Lys Thr Thr Val
      130          135          140
Thr Glu His Ser Gly Gln His Arg Trp Ser Ser Phe Ala Val Asn Glu
145          150          155          160
Leu Ser Leu Glu Lys Ala Ala Arg Arg Arg Met Leu Asp Val Leu Ala
      165          170          175
Ser Val Asp Glu Leu Pro Val Gln Arg Trp Ser Cys Asp Gly Ile Leu
      180          185          190
Val Ser Thr Pro Thr Gly Ser Thr Ala Tyr Ala Phe Ser Ala Gly Gly
      195          200          205
Pro Val Met Trp Pro Asp Leu Asp Ala Met Leu Met Val Pro Leu Ser
      210          215          220
Ala His Ala Leu Phe Ala Arg Pro Leu Val Met Ser Pro Ala Ala Arg
225          230          235          240
Val Asp Leu Asp Ile Gln Pro Asp Gly Ser Glu Ser Ala Val Leu Trp
      245          250          255
Cys Asp Gly Arg Arg Ser Cys Thr Val Arg Pro Gly Glu Arg Ile Thr
      260          265          270
Val Val Arg His Pro Asp Arg Leu Arg Ile Ala Arg Leu Ala Ala Gln
      275          280          285
Pro Phe Thr Ser Arg Leu Val Lys Lys Phe Glu Leu Pro Val Ser Gly
      290          295          300
Trp Arg Gln Gly Arg Asp Arg His His Leu Glu Glu Thr Ser
305          310          315

```

&lt;210&gt; 355

&lt;211&gt; 558

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 355

```

nggatccac ctcctggaat ggaaaccac ataccagttc tcttcctcga tttgaatgcg
60
gatgacctca gtgccaatga gcagcttggt ggcccccatg catccggcgt gaactccatc
120

```

WO 00/58473

ctgcccagg agcatggcag ccagtttttc tacctgcccc tcataaagca cagtgatgat  
 180  
 gaggtttcag ccacagcctc ttgggattcc tcggtgcatg attctgttca cttgaatggg  
 240  
 gtcacaccac agaatgaaag gatttaccta attgtgaaaa ccacagttca actcagccac  
 300  
 cctgctgcta tggagttagt attacgaaaa cgaattgcag ccaatattta caacaaacag  
 360  
 agtttcacgc agagtttgaa gaggagaata tccctgaaaa atatatttta ttctgtggt  
 420  
 gtaacctatg aaatagtatc caatatacca aaggcaactg aggagataga ggaccgggaa  
 480  
 acgctggctc tcctggcagc aaggagtga aacgaaggca catcagatgg gaagacgtac  
 540  
 attgagaagt acactcga  
 558

<210> 356  
 <211> 186  
 <212> PRT  
 <213> Homo sapiens

<400> 356  
 Xaa Ile Pro Pro Pro Gly Met Glu Thr His Ile Pro Val Leu Phe Leu  
 1 5 10 15  
 Asp Leu Asn Ala Asp Asp Leu Ser Ala Asn Glu Gln Leu Val Gly Pro  
 20 25 30  
 His Ala Ser Gly Val Asn Ser Ile Leu Pro Lys Glu His Gly Ser Gln  
 35 40 45  
 Phe Phe Tyr Leu Pro Ile Ile Lys His Ser Asp Asp Glu Val Ser Ala  
 50 55 60  
 Thr Ala Ser Trp Asp Ser Ser Val His Asp Ser Val His Leu Asn Gly  
 65 70 75 80  
 Val Thr Pro Gln Asn Glu Arg Ile Tyr Leu Ile Val Lys Thr Thr Val  
 85 90 95  
 Gln Leu Ser His Pro Ala Ala Met Glu Leu Val Leu Arg Lys Arg Ile  
 100 105 110  
 Ala Ala Asn Ile Tyr Asn Lys Gln Ser Phe Thr Gln Ser Leu Lys Arg  
 115 120 125  
 Arg Ile Ser Leu Lys Asn Ile Phe Tyr Ser Cys Gly Val Thr Tyr Glu  
 130 135 140  
 Ile Val Ser Asn Ile Pro Lys Ala Thr Glu Glu Ile Glu Asp Arg Glu  
 145 150 155 160  
 Thr Leu Ala Leu Leu Ala Ala Arg Ser Glu Asn Glu Gly Thr Ser Asp  
 165 170 175  
 Gly Lys Thr Tyr Ile Glu Lys Tyr Thr Arg  
 180 185

<210> 357  
 <211> 323  
 <212> DNA  
 <213> Homo sapiens

<400> 357

acgcgtgcgt gtgttggtg agtcgggtgt gtgcatgcgt gtgggtgtgc agcaggtggg  
 60  
 gtacgatcag gctgaaggct gatcaggcac aaggctctgg gggagagccc tggttccagc  
 120  
 cctgggggtca gagcagcagg ggccagaaag acggcagggg tgagcactgc acccgctggg  
 180  
 cagggcaggg ccacagaagg cagggcatgg aggccacgtg aagggttga cagagtggat  
 240  
 ggatgtctcc ggaagcacct gcgtggccca gtcagcagga tcagactcgc atgtgtcagg  
 300  
 gtcaccatgg gtcagcgagg atn  
 323

&lt;210&gt; 358

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 358

Met	Val	Thr	Leu	Thr	His	Ala	Ser	Leu	Ile	Leu	Leu	Thr	Gly	Pro	Arg
1				5					10					15	
Arg	Cys	Phe	Arg	Arg	His	Pro	Ser	Thr	Leu	Ser	Ser	Pro	Ser	Arg	Gly
			20					25					30		
Leu	His	Ala	Leu	Pro	Ser	Val	Ala	Leu	Pro	Cys	Pro	Ala	Gly	Ala	Val
		35					40					45			
Leu	Thr	Pro	Ala	Val	Phe	Leu	Ala	Pro	Ala	Ala	Leu	Thr	Pro	Gly	Leu
	50					55					60				
Glu	Pro	Gly	Leu	Ser	Pro	Arg	Ala	Leu	Cys	Leu	Ile	Ser	Leu	Gln	Pro
65					70				75					80	
Asp	Arg	Thr	Pro	Pro	Ala	Ala	His	Pro	His	Ala	Cys	Thr	His	Pro	Thr
			85					90					95		
His	Thr	Thr	His	Ala	Arg										
															100

&lt;210&gt; 359

&lt;211&gt; 265

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 359

acgcgtaccg acaagcgccc ggtgatggcc gaccttcgcg aatcgggctgc aatcgagcag  
 60  
 gatgcggaca tgatcgtctt catctaccgc gacgattact acaacaagga aaattcgccg  
 120  
 gacaaggggc tggccgagat catcatcggc aagcatcggg ggggccccac cggctcgtgc  
 180  
 aagctgaagt tcttcggcga gtacaccctt ttcgacaacc tggcccacaa ctcggtttgt  
 240  
 tcgttcgaat aacggatgat tccgg  
 265

&lt;210&gt; 360

&lt;211&gt; 83

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 360

```

Thr Arg Thr Asp Lys Arg Pro Val Met Ala Asp Leu Arg Glu Ser Gly
 1           5           10           15
Ala Ile Glu Gln Asp Ala Asp Met Ile Val Phe Ile Tyr Arg Asp Asp
          20           25           30
Tyr Tyr Asn Lys Glu Asn Ser Pro Asp Lys Gly Leu Ala Glu Ile Ile
          35           40           45
Ile Gly Lys His Arg Gly Gly Pro Thr Gly Ser Cys Lys Leu Lys Phe
          50           55           60
Phe Gly Glu Tyr Thr Arg Phe Asp Asn Leu Ala His Asn Ser Val Gly
65           70           75           80
Ser Phe Glu

```

&lt;210&gt; 361

&lt;211&gt; 453

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 361

```

gctttgcagg aggaaatctc tatctctggc tgcaagatga ggctgagcta cctgagcagc
60
cggacccctg gctacaaatc tgtcctgagg atcagcctca cccacccgac catcccttc
120
aacctcatga aggtgcacct catggtagcg gtggagggcc gcctcttcag gaagtggttc
180
gctgcagccc cagacctgtc ctattatttc atttgggaca agacagacgt ctacaaccag
240
aaggtgtttg ggctttcaga agcctttggt tccgtggggt atgaatatga atcctgccc
300
gatctaattc tgtgggaaaa aagaacaaca gtgctgcagg gctatgaaat tgacgcgtcc
360
aagcttggag gatggagcct agacaaacat catgccctca acattcaaag tggcatcctg
420
caciaaggga atgngagaa ccagtttgtg tct
453

```

&lt;210&gt; 362

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 362

```

Ala Leu Gln Glu Glu Ile Ser Ile Ser Gly Cys Lys Met Arg Leu Ser
 1           5           10           15
Tyr Leu Ser Ser Arg Thr Pro Gly Tyr Lys Ser Val Leu Arg Ile Ser
          20           25           30
Leu Thr His Pro Thr Ile Pro Phe Asn Leu Met Lys Val His Leu Met
          35           40           45
Val Ala Val Glu Gly Arg Leu Phe Arg Lys Trp Phe Ala Ala Ala Pro
          50           55           60
Asp Leu Ser Tyr Tyr Phe Ile Trp Asp Lys Thr Asp Val Tyr Asn Gln

```

```

65          70          75          80
Lys Val Phe Gly Leu Ser Glu Ala Phe Val Ser Val Gly Tyr Glu Tyr
          85          90          95
Glu Ser Cys Pro Asp Leu Ile Leu Trp Glu Lys Arg Thr Thr Val Leu
          100          105          110
Gln Gly Tyr Glu Ile Asp Ala Ser Lys Leu Gly Gly Trp Ser Leu Asp
          115          120          125
Lys His His Ala Leu Asn Ile Gln Ser Gly Ile Leu His Lys Gly Asn
          130          135          140
Gly Glu Asn Gln Phe Val Ser
145          150

```

<210> 363  
 <211> 502  
 <212> DNA  
 <213> Homo sapiens

```

<400> 363
ggtaacaaaa aagtttgcca cagtattcac actccaggtc tccataaacc ttccagatcc
60
gctcacacaa gctggtgttc atttgcttct tctgtaaact gttcaggacc ttcataaaaag
120
cggtgatgcc tgaccggtgc tcaggggcag ctttgcaaga gtcaggctga tgtgtgatgg
180
tgtccccacc accagctact ggagggagga ggtctgaggc ctcagctggg tttgacctga
240
gacacctgct gggatctggg tcaccagctg aaagcacagc catgttctgc ctttccctta
300
gggggctctg ggcgccatgg ctttctctgat ctgaccacgc actctggggc ttggacagca
360
gtagtgtgat cacttcacct tgcgtctgga ctgagcttct gtgctgcatg tctgggggct
420
tctcaggagc agcatgagcc tctgcggagg aggtatcatt tttcaacaaa aaatcatctg
480
aaaccacctc ttgagaatgc ag
502

```

<210> 364  
 <211> 136  
 <212> PRT  
 <213> Homo sapiens

```

<400> 364
Met Gln His Arg Ser Ser Val Gln Thr Gln Gly Glu Val Ile Thr Leu
1          5          10          15
Leu Leu Ser Lys Ala Gln Ser Ala Gly Ser Asp Gln Glu Ser His Gly
          20          25          30
Ala Gln Ser Pro Leu Gly Glu Gly Gln Asn Met Ala Val Leu Ser Ala
          35          40          45
Gly Asp Pro Asp Pro Ser Arg Cys Leu Arg Ser Asn Pro Ala Glu Ala
          50          55          60
Ser Asp Leu Leu Pro Pro Val Ala Gly Gly Gly Asp Thr Ile Thr His
65          70          75          80
Gln Pro Asp Ser Cys Lys Ala Ala Pro Glu His Arg Ser Gly Ile Thr

```



gcgttcgtcg cactacccgg cggcggcgga acccttgacg agctactcga agcatggaca  
 60  
 tggcagcagc tcggtgtaca cagcaaaccg gtgngccttg tacgactcga cnncttctgg  
 120  
 gcaccgctga ccgcgctact caaccacatg accatcgaaa gcttcattcg ccctgaggac  
 180  
 cgcgcctcgc tcgtgatcgc cgataccata catcagctga tggccgatct tgagggatgg  
 240  
 accccaccac caccgaagtg gcgctcgtga catagaacaa atgattctga ctatggctca  
 300  
 ttgacatctg cgcagcggct actagctcca ttgacttcaa atcgggcctt ggccgaggct  
 360  
 cngttcaggt ggcccggaat g  
 381

<210> 368  
 <211> 89  
 <212> PRT  
 <213> Homo sapiens

<400> 368  
 Ala Phe Val Ala Leu Pro Gly Gly Gly Gly Thr Leu Asp Glu Leu Leu  
 1 5 10 15  
 Glu Ala Trp Thr Trp Gln Gln Leu Gly Val His Ser Lys Pro Val Xaa  
 20 25 30  
 Leu Val Arg Leu Asp Xaa Phe Trp Ala Pro Leu Thr Ala Leu Leu Asn  
 35 40 45  
 His Met Thr Ile Glu Ser Phe Ile Arg Pro Glu Asp Arg Ala Ser Leu  
 50 55 60  
 Val Ile Ala Asp Thr Ile His Gln Leu Met Ala Asp Leu Glu Gly Trp  
 65 70 75 80  
 Thr Pro Pro Pro Pro Lys Trp Arg Ser  
 85

<210> 369  
 <211> 313  
 <212> DNA  
 <213> Homo sapiens

<400> 369  
 gatacatgat cctctcatac cgcacacaca ccgctccctt ctgccgcaat tcgcagacaa  
 60  
 acttgccgag gcttcacagc aagccgtcaa ggctgcttcc tgtgggctac cgatagtctc  
 120  
 gtacgcgagt tctcggacat caacgccaac gtcgggcaag atactgtcaa cgccatctac  
 180  
 acattctacg agcagcaagc gaccagtttc cttcgccagc tgaacgacct cccacccgaa  
 240  
 gagcttcccg acgtcatcga ggacttcttc cgcctgtcca ctgatgtcct tctttaccat  
 300  
 ttccagcaag ctt  
 313

<210> 370



<211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 370  
 Ser Ser His Thr Ala His Thr Pro Leu Pro Ser Ala Ala Ile Arg Arg  
 1 5 10 15  
 Gln Thr Cys Ala Gly Phe Thr Ala Ser Arg Gln Gly Cys Phe Leu Trp  
 20 25 30  
 Ala Thr Asp Ser Leu Val Arg Glu Phe Ser Asp Ile Asn Ala Asn Val  
 35 40 45  
 Gly Gln Asp Thr Val Asn Ala Ile Tyr Thr Phe Tyr Glu Gln Gln Ala  
 50 55 60  
 Thr Ser Phe Leu Arg Gln Leu Asn Asp Leu Pro Pro Glu Glu Leu Pro  
 65 70 75 80  
 Asp Val Ile Glu Asp Phe Phe Arg Leu Ser Thr Asp Val Leu Leu Tyr  
 85 90 95  
 His Phe Gln Gln Ala  
 100

<210> 371  
 <211> 380  
 <212> DNA  
 <213> Homo sapiens

<400> 371  
 atgacgggtc acgtcatcct ggcgattcca caggtggtga cgtcatggat cggcctcatc  
 60  
 tgcacgcca ttggcacggg ctttatcaag ccgaacctct ccacgggtggg aggaggtctt  
 120  
 tacgatgacg gtgacccccg ccgcgatcag ggtttcctgt acttctacat gtcgatcagt  
 180  
 attggatctc tcttcgcgcc gatcgtcacc ggcctcctca aggaccatta cggctaccac  
 240  
 gtaggtttca ttgccgctgc tateggtatg gctctgggtc tgatcgcctt cttccacggg  
 300  
 cgttccaaac tgcgtgagct cgccttcgac atccccaatc cgctggcccc cggcgagggt  
 360  
 cgccggatgg tgctccgcgg  
 380

<210> 372  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens

<400> 372  
 Met Thr Gly His Val Ile Leu Ala Ile Pro Gln Val Val Thr Ser Trp  
 1 5 10 15  
 Ile Gly Leu Ile Cys Ile Ala Ile Gly Thr Gly Phe Ile Lys Pro Asn  
 20 25 30  
 Leu Ser Thr Val Val Gly Gly Leu Tyr Asp Asp Gly Asp Pro Arg Arg  
 35 40 45  
 Asp Gln Gly Phe Leu Tyr Phe Tyr Met Ser Ile Ser Ile Gly Ser Leu

```

      50      55      60
Phe Ala Pro Ile Val Thr Gly Leu Leu Lys Asp His Tyr Gly Tyr His
65      70      75      80
Val Gly Phe Ile Ala Ala Ala Ile Gly Met Ala Leu Gly Leu Ile Ala
      85      90      95
Phe Phe His Gly Arg Ser Lys Leu Arg Glu Leu Ala Phe Asp Ile Pro
      100      105      110
Asn Pro Leu Ala Pro Gly Glu Gly Arg Arg Met Val Leu Arg
      115      120      125

```

<210> 373  
 <211> 475  
 <212> DNA  
 <213> Homo sapiens

```

<400> 373
acatgttgga aaaattgcct cccactctgg tgctacaggt atgaatctca gccacagtga
60
tgactgtggc agctacaggc ctgatgaaca cccaccaag aaaaggagca tcatgtgect
120
gcttctctct ggttcctaaa tcctttggcc aaacattttc cccacaaccc tccactccag
180
ttggctggtc actgcctctc agaaagaagt cccagggtccc tgtcagcccc agagcgcttg
240
catggactct gccactgtc cctttccaac acggaggccc ccaattctgg ggacccttac
300
accctaccct gtaccaccac atccccatgc ctgctccaga cagcactaac ctcccatgac
360
agtgggacca aagcagttct taaagggtcca atccactcag ttcttaaagt aaaaacagtt
420
gcccatgagt ccccccaaa gacgtccgca catatgccaa acattcggtg tgcac
475

```

<210> 374  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

```

<400> 374
Met Gly Met Trp Trp Tyr Arg Val Gly Cys Arg Gly Pro Gln Asn Trp
1      5      10      15
Gly Pro Pro Cys Trp Lys Gly Thr Val Gly Arg Val His Ala Gly Ala
      20      25      30
Leu Gly Leu Thr Gly Thr Trp Asp Phe Phe Leu Arg Gly Ser Asp Gln
      35      40      45
Pro Thr Gly Val Glu Gly Cys Gly Glu Asn Val Trp Pro Lys Asp Leu
      50      55      60
Gly Thr Arg Glu Lys Gln Ala His Asp Ala Pro Phe Leu Gly Gly Val
65      70      75      80
Phe Ile Arg Pro Val Ala Ala Thr Val Ile Thr Val Ala Glu Ile His
      85      90      95
Thr Cys Ser Thr Arg Val Gly Gly Asn Phe Ser Asn Met
      100      105

```

<210> 375  
 <211> 332  
 <212> DNA  
 <213> Homo sapiens

<400> 375  
 nnacgcgtcg cctccacctc gaaacccgcc ggcggtcggt ttttcacat gcccgaccgc  
 60  
 aaggcccaag ttgcgacggt cacggacacg ctgtatttca cgccgtcgca atgggatgga  
 120  
 tgcattggcac ggatgcgtgg ggataagata tcagcactga agtggaatca gatgcagatg  
 180  
 gcggcatgct ccttcacatg gccagtggtt gcgaagctgg gctgcccgc gcgcactatg  
 240  
 ggacgggcgc agctgctgta ccagcgtttc catctatttc atgcgccgac tgagttttcg  
 300  
 ttacatgagg tggctttgac gtgtctcttc ac  
 332

<210> 376  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 376  
 Xaa Arg Val Ala Ser Thr Ser Lys Pro Ala Gly Gly Arg Phe Phe Thr  
 1 5 10 15  
 Met Ala Asp Arg Lys Ala Gln Val Ala Thr Val Thr Asp Thr Leu Tyr  
 20 25 30  
 Phe Thr Pro Ser Gln Trp Asp Gly Cys Met Ala Arg Met Arg Gly Asp  
 35 40 45  
 Lys Ile Ser Ala Leu Lys Trp Asn Gln Met Gln Met Ala Ala Cys Ser  
 50 55 60  
 Phe Ile Ala Ala Val Gly Ala Lys Leu Gly Cys Pro Gln Arg Thr Met  
 65 70 75 80  
 Gly Thr Ala Gln Leu Leu Tyr Gln Arg Phe His Leu Phe His Ala Pro  
 85 90 95  
 Thr Glu Phe Ser Leu His Glu Val Ala Leu Thr Cys Leu Phe  
 100 105 110

<210> 377  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

<400> 377  
 cgcggtgccag gtagtcaac tgatctgtcg gatatttccg aggttgagta ccgtcaactg  
 60  
 aggctggaac gagtgggtgct gtgttcggtg tggactcagg gaactgccgc agacgccgag  
 120  
 aacgctatgg cggagctgaa agcccttgct gaaacggcgg gatctcaggt actcgaagct  
 180  
 gtcattgcaac gtcggactac cccggatccg gcgacgtaca ttggttcggg caaggtggct  
 240

gagcttgccg aggtggtgcg ggcgactggt gccgatactg tcatttgtga cgggtgaactt  
300

gacgccgctc agttgcgcaa cctcgaggat cgggtcaagn gcaaagttgt ggaccggtcg  
360

gtctgattc  
369

<210> 378

<211> 121

<212> PRT

<213> Homo sapiens

<400> 378

Arg	Val	Pro	Gly	Met	Ser	Thr	Asp	Leu	Ser	Asp	Ile	Ser	Glu	Val	Glu
1				5					10					15	
Tyr	Arg	Gln	Leu	Arg	Leu	Glu	Arg	Val	Val	Leu	Cys	Ser	Val	Trp	Thr
		20					25						30		
Gln	Gly	Thr	Ala	Ala	Asp	Ala	Glu	Asn	Ala	Met	Ala	Glu	Leu	Lys	Ala
		35				40					45				
Leu	Ala	Glu	Thr	Ala	Gly	Ser	Gln	Val	Leu	Glu	Ala	Val	Met	Gln	Arg
	50				55					60					
Arg	Thr	Thr	Pro	Asp	Pro	Ala	Thr	Tyr	Ile	Gly	Ser	Gly	Lys	Val	Ala
65				70					75					80	
Glu	Leu	Ala	Glu	Val	Val	Arg	Ala	Thr	Gly	Ala	Asp	Thr	Val	Ile	Cys
			85				90						95		
Asp	Gly	Glu	Leu	Asp	Ala	Ala	Gln	Leu	Arg	Asn	Leu	Glu	Asp	Arg	Val
		100					105						110		
Lys	Xaa	Lys	Val	Val	Asp	Arg	Ser	Val							
		115				120									

<210> 379

<211> 408

<212> DNA

<213> Homo sapiens

<400> 379

acgcgttact taaacttatc tgtaaataat aaattcatta tttctagttg gtttaggtact  
60

atgggctgtg gtttaccagg tgctatggca gctaaaattg cttatccaaa ccgtcaagca  
120

gtagctatca caggcgacgg tgcgttccaa atggtaatgc aagactttgc tacagctgtt  
180

caatataact taccaatgac aatctttgta ttaaataaca aacaattgtc attcattaaa  
240

tatgaacaac aagctgctgg tgaattagag tatgccattg atttctctga tatggatcat  
300

gctaaatttg ctgaagctgc tgggtggtaaa ggctatgttg tgagagatgt aagtcgtctt  
360

gacgacatcg ttgaagaggc aatggctcaa gatgttccaa caatcggt  
408

<210> 380

<211> 136

<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 380

```

Thr Arg Tyr Leu Asn Leu Ser Val Asn Asn Lys Phe Ile Ile Ser Ser
 1           5           10           15
Trp Leu Gly Thr Met Gly Cys Gly Leu Pro Gly Ala Met Ala Ala Lys
          20           25           30
Ile Ala Tyr Pro Asn Arg Gln Ala Val Ala Ile Thr Gly Asp Gly Ala
          35           40           45
Phe Gln Met Val Met Gln Asp Phe Ala Thr Ala Val Gln Tyr Asn Leu
          50           55           60
Pro Met Thr Ile Phe Val Leu Asn Asn Lys Gln Leu Ser Phe Ile Lys
65           70           75           80
Tyr Glu Gln Gln Ala Ala Gly Glu Leu Glu Tyr Ala Ile Asp Phe Ser
          85           90           95
Asp Met Asp His Ala Lys Phe Ala Glu Ala Ala Gly Gly Lys Gly Tyr
          100          105          110
Val Val Arg Asp Val Ser Arg Leu Asp Asp Ile Val Glu Glu Ala Met
          115          120          125
Ala Gln Asp Val Pro Thr Ile Val
          130          135

```

&lt;210&gt; 381

&lt;211&gt; 613

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 381

```

naccggtcat aggcggggccc agtggaagac caccgcaaca cagttggttg agatccgcgt
60
tgagggcaag gtcctgcgcg tcccgcgaaa tctggtcaag gcctaccact ctgggctgat
120
cgacgtcgag gactgaaccc tgggagcctg ggcgggtccag catgactgct caggctcatt
180
acaaaaacgc gtcgatcccc taggggtgtc gtcatgagca agcccgaagt gaccctgccc
240
gattccgccc ccgacgacct cgtcgttgag gacatcacca tcggcgacgg ccctgaagcg
300
tccgctggca acctcgtcga agtgcactac gtcggcgtgg ccttaagcaa tggtcgtgag
360
ttcgattctt cctggaaccg cggggagccg ctgaccttcc aactaggggc tggccagggtg
420
atccccgagt gggatgaagg tgtccaaggt atgaaggctg gtggacgacg caaactcgtc
480
atccccacc accttgctta cgggtccgcaa ggaatctccg gtgtgatcgc tggcggtgag
540
acgctggtct tcgtctgcga ccttgctaac atcatctgac gtgacccccg ctcaagcagt
600
cttcgcgccc ggg
613

```

&lt;210&gt; 382

&lt;211&gt; 137

&lt;212&gt; PRT

<213> Homo sapiens

<400> 382

```

Leu Leu Arg Leu Ile Thr Lys Thr Arg Arg Ser Arg Arg Val Val Val
 1           5           10           15
Met Ser Lys Pro Glu Val Thr Leu Pro Asp Ser Ala Pro Asp Asp Leu
      20           25           30
Val Val Glu Asp Ile Thr Ile Gly Asp Gly Pro Glu Ala Ser Ala Gly
      35           40           45
Asn Leu Val Glu Val His Tyr Val Gly Val Ala Leu Ser Asn Gly Arg
 50           55           60
Glu Phe Asp Ser Ser Trp Asn Arg Gly Glu Pro Leu Thr Phe Gln Leu
65           70           75           80
Gly Ala Gly Gln Val Ile Pro Glu Trp Asp Glu Gly Val Gln Gly Met
      85           90           95
Lys Val Gly Gly Arg Arg Lys Leu Val Ile Pro His His Leu Ala Tyr
      100          105          110
Gly Pro Gln Gly Ile Ser Gly Val Ile Ala Gly Gly Glu Thr Leu Val
      115          120          125
Phe Val Cys Asp Leu Val Asn Ile Ile
      130          135

```

<210> 383

<211> 352

<212> DNA

<213> Homo sapiens

<400> 383

```

nggagcaaca cctgggtcctt ggggaatgaag tgtaggagtt gcatttgctg aggttggtgt
60
ttgccaaaga gatgccagct tcttcgaact actgctgtgc aactcttcat gttcaaaacc
120
cagttttctg tttttcacac ctgaacatac acccccctgc agttgggtgg ctcccccggt
180
accagctggg ctctatctac agagagagca atggcttccc ttcccttgaa ggaagtctca
240
ccctcacaag gacacttgat ccgctgcaaa gcagaaagtg tgcggaccct ttgggaaggg
300
cgttcttttc ttgtttagaa cctaggattc tgtttttccc aaacaggatc an
352

```

<210> 384

<211> 93

<212> PRT

<213> Homo sapiens

<400> 384

```

Met Pro Ala Ser Ser Asn Tyr Cys Cys Ala Thr Leu His Val Gln Asn
 1           5           10           15
Pro Val Phe Cys Phe Ser His Leu Asn Ile His Pro Pro Ala Val Gly
      20           25           30
Trp Leu Pro Arg Tyr Gln Leu Gly Ser Ile Tyr Arg Glu Ser Asn Gly
      35           40           45
Phe Pro Ser Leu Glu Gly Ser Leu Thr Leu Thr Arg Thr Leu Asp Pro

```

50                      55                      60  
 Leu Gln Ser Arg Lys Cys Ala Asp Pro Leu Gly Arg Ala Phe Phe Ser  
 65                      70                      75                      80  
 Cys Leu Glu Pro Arg Ile Leu Phe Phe Pro Asn Arg Ile  
                     85                      90

<210> 385  
 <211> 342  
 <212> DNA  
 <213> Homo sapiens

<400> 385  
 gccggcgcca cgaaatgcaa aatgcgccct tcaccggacg ccaggttgat cgagccgcca  
 60  
 gcacctcggg caatgtcctg ggcctgactg gcacacgcaa tcaaagcgag caacaacaca  
 120  
 caaaaacgca tcatgaggca gacgccaggg aagtgcaga agccgcagca ggcgcgcggc  
 180  
 gattggaaat atcggtgagg ctaatggtca ccagcgcttg caggttgat tcggtggcca  
 240  
 attcgcgga cgacagcacc gccagttcca gctcgccgcg cagcaccagg cgacgcaagc  
 300  
 tgccggcgcaa ctccgggtgc accaacaaca ccgcactgtt ca  
 342

<210> 386  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 386  
 Met Gln Asn Ala Pro Phe Thr Gly Arg Gln Val Asp Arg Ala Ala Ser  
 1                      5                      10                      15  
 Thr Ser Gly Asn Val Leu Gly Leu Thr Gly Thr Arg Asn Gln Ser Glu  
                     20                      25                      30  
 Gln Gln His Thr Lys Thr His His Glu Ala Asp Ala Arg Glu Val Thr  
                     35                      40                      45  
 Glu Ala Ala Ala Gly Ala Arg Arg Leu Glu Ile Ser Val Arg Leu Met  
                     50                      55                      60  
 Val Thr Ser Ala Cys Arg Leu Tyr Ser Val Ala Asn Ser Arg Asn Asp  
 65                      70                      75                      80  
 Ser Thr Ala Ser Ser Ser Ser Pro Arg Ser Thr Arg Arg Arg Lys Leu  
                     85                      90                      95  
 Arg Arg Asn Ser Gly Cys Thr Asn Asn Thr Ala Leu Phe  
                     100                      105

<210> 387  
 <211> 379  
 <212> DNA  
 <213> Homo sapiens

<400> 387  
 acgcgtgacg cgccggcatc ggaagcgttg actgcagaga agaccgcgca cgtggctgtg  
 60

ggacgtgctg gcacgtctga catggtgcgt ggacccgcct tctcttcgcc tgcgcatgcc  
 120  
 atgcaagagg agcttgacaa tgtgcgtgat ctgcgccatg cgcggcagca agcgctcgat  
 180  
 gctgttcggt ccgagctgct cgaagcgcag caagcatgtg cctcgtgccca gctgcagctg  
 240  
 cagcatgtgc cagatgatcg tgtgcgagcg catcccatat accaggcgct ccatgcggac  
 300  
 gttgcttaca tgcagcaaga acttgatcac gtacgagacg cattggcttc ggcagaatct  
 360  
 gagaatgcga gcctgcgcg  
 379

<210> 388  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 388  
 Met Arg Leu Val Arg Asp Gln Val Leu Ala Ala Cys Lys Gln Arg Pro  
 1 5 10 15  
 His Gly Ala Pro Gly Ile Trp Asp Ala Leu Ala His Asp His Leu Ala  
 20 25 30  
 His Ala Ala Ala Ala Ala Gly Thr Arg His Met Leu Ala Ala Leu Arg  
 35 40 45  
 Ala Ala Arg Asn Glu Gln His Arg Ala Leu Ala Ala Ala His Gly Arg  
 50 55 60  
 Asp His Ala His Cys Gln Ala Pro Leu Ala Trp His Ala Gln Ala Lys  
 65 70 75 80  
 Arg Arg Arg Val His Ala Pro Cys Gln Thr Cys Gln His Val Pro Gln  
 85 90 95  
 Pro Arg Ala Arg Ser Ser Leu Gln Ser Thr Leu Pro Met Pro Ala Arg  
 100 105 110  
 His Ala

<210> 389  
 <211> 382  
 <212> DNA  
 <213> Homo sapiens

<400> 389  
 ngatggccga ctgtcccact gtcagtacgc gaagctcgcc gtcgagtcgg tccacgtccg  
 60  
 ggccctccac gtgtcccgca accctccgaa gcgatgacct ggcccggggg cggcaacgag  
 120  
 gtattgcgtt tggagacgct tgggggtcaat tacggccagg tgcgcgccgt cgatgccctg  
 180  
 acgaccaccg tagagcgcgg caccatcacc tgcctcatgg gtcgaaatgg atcaggcaag  
 240  
 tcgtctctga tgtgggcat ccaaggggca acaaagtcct cagggagggt actgggtcaac  
 300  
 cacgagggtt cttgggctga ccccgcaaa gccgacgccg cgaccgctcg acgaatggtg  
 360



agcttagtcc cgcagtcagc cn  
382

<210> 390  
<211> 127  
<212> PRT  
<213> Homo sapiens

<400> 390  
Xaa Trp Pro Thr Val Pro Leu Ser Val Arg Glu Ala Arg Arg Arg Val  
1 5 10 15  
Gly Pro Arg Pro Gly Leu Pro Arg Ala Pro Gln Pro Ser Glu Ala Met  
20 25 30  
Thr Trp Pro Gly Gly Gly Asn Glu Val Leu Arg Leu Glu Thr Leu Gly  
35 40 45  
Val Asn Tyr Gly Gln Val Arg Ala Val Asp Ala Leu Thr Thr Thr Val  
50 55 60  
Glu Arg Gly Thr Ile Thr Cys Leu Met Gly Arg Asn Gly Ser Gly Lys  
65 70 75 80  
Ser Ser Leu Met Trp Ala Ile Gln Gly Ala Thr Lys Ser Ser Gly Arg  
85 90 95  
Val Leu Val Asn His Glu Gly Ser Trp Ala Asp Pro Arg Lys Ala Asp  
100 105 110  
Ala Ala Thr Ala Arg Arg Met Val Ser Leu Val Pro Gln Ser Ala  
115 120 125

<210> 391  
<211> 456  
<212> DNA  
<213> Homo sapiens

<400> 391  
nnacgcgttg ccgctctgtg aggcgcctat cacggtgaca ctctcggtgc tatgagcgtg  
60  
tgcgacccta tcggtggcat gcacgccttg ttcagcgact ctattcccca gcagatcttc  
120  
ctgcccgcgc cctccttctt tcgccgccga cgaggccgac gtggagacgt ggtgcagcga  
180  
ggccgatgaa tcctggacac ccaccgcgac gacctggccg ggatcattgt cgagcccatc  
240  
ttgcaaggag ccggaggcat gtggccgtgg tctccgtcct gtctgaagca cctgcgccgt  
300  
cgtgctgatg aacttgacct agttcttata gccgacgagg tcgctactgg atttgggcgg  
360  
actggcaaac ttttcgcatg cgagtgggcc gatatcgttc ctgacatcat ggtgggttggg  
420  
aatccatga ctggcggata cctgacccag tcggcc  
456

<210> 392  
<211> 55  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 392

Gly Ala Tyr His Gly Asp Thr Leu Gly Ala Met Ser Val Cys Asp Pro  
 1 5 10 15  
 Ile Gly Gly Met His Ala Xaa Phe Ser Asp Ser Ile Pro Gln Gln Ile  
 20 25 30  
 Phe Leu Pro Ala Pro Ser Phe Phe Arg Arg Arg Arg Gly Arg Arg Gly  
 35 40 45  
 Asp Val Val Gln Arg Gly Arg  
 50 55

&lt;210&gt; 393

&lt;211&gt; 371

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 393

nacgcgttgc tcgtcattgg tggctactcg gcctacgaag gtatctacac catgatgact  
 60  
 gagcgggacc ggtaccgggc tttccgtatt ccgacgggtg gcacccgggc ttctatcgac  
 120  
 aacaacctcc ccggttcgga actgtccatc ggcaccgaca ccgctctcaa cgtcatcgtc  
 180  
 gaggcgatgg acaagattaa ggagtcgggt atcgcgcca gacgctgctt cgtcgtcgag  
 240  
 acgatgggtc gtgactgcgg atacctcgcg ttgatgtcgg gtatcgcagc tggcgtgag  
 300  
 cggatctata ccaacgagga cggtatctcc ctggacgac tagccaacga cgtccattgg  
 360  
 ttgcgggagt c  
 371

&lt;210&gt; 394

&lt;211&gt; 123

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 394

Xaa Ala Leu Leu Val Ile Gly Gly Tyr Ser Ala Tyr Glu Gly Ile Tyr  
 1 5 10 15  
 Thr Met Met Thr Glu Arg Asp Arg Tyr Pro Ala Phe Arg Ile Pro Thr  
 20 25 30  
 Val Cys Ile Pro Ala Ser Ile Asp Asn Asn Leu Pro Gly Ser Glu Leu  
 35 40 45  
 Ser Ile Gly Thr Asp Thr Ala Leu Asn Val Ile Val Glu Ala Met Asp  
 50 55 60  
 Lys Ile Lys Glu Ser Gly Ile Ala Ser Arg Arg Cys Phe Val Val Glu  
 65 70 75 80  
 Thr Met Gly Arg Asp Cys Gly Tyr Leu Ala Leu Met Ser Gly Ile Ala  
 85 90 95  
 Ala Gly Ala Glu Arg Ile Tyr Thr Asn Glu Asp Gly Ile Ser Leu Asp  
 100 105 110  
 Asp Leu Ala Asn Asp Val His Trp Leu Arg Glu  
 115 120

10/04/2011  
Ba

<210> 395  
<211> 351  
<212> DNA  
<213> Homo sapiens

<400> 395  
gaattctagt tgggagattc attgaccaga cttttggaat aaacactagt catcatgcta  
60  
gcgacaggtg gtcttggtgca tggtagaaag gcagtccaag cctatgtctc tgaaacctgc  
120  
tctcatttct gttttctact ttacgattta tggtatctca tactcccat gttgcctggt  
180  
ctccagtttt ttacttgtg ttatttccat tcttctattc ctgctcaatt tctgcctcag  
240  
ggcagaattg tgtccaacag ctcttaaagt cagcgcagaa actgtgatgt taaaaacatc  
300  
ttgttatccg gcccacaaac atgttgctct tggtaactct tactgggttg t  
351

<210> 396  
<211> 90  
<212> PRT  
<213> Homo sapiens

<400> 396  
Met Val Glu Arg Gln Ser Lys Pro Met Ser Leu Lys Pro Ala Leu Ile  
1 5 10 15  
Ser Val Phe Tyr Phe Thr Ile Tyr Val Ile Ser Tyr Ser Pro Cys Cys  
20 25 30  
Leu Phe Ser Ser Phe Phe Thr Cys Val Ile Ser Ile Leu Leu Phe Leu  
35 40 45  
Leu Asn Phe Cys Leu Arg Ala Glu Leu Cys Pro Thr Ala Leu Lys Cys  
50 55 60  
Ser Ala Glu Thr Val Met Leu Lys Thr Ser Cys Tyr Pro Ala Pro Lys  
65 70 75 80  
His Val Val Leu Gly Asn Ser Tyr Trp Phe  
85 90

<210> 397  
<211> 483  
<212> DNA  
<213> Homo sapiens

<400> 397  
gccgtcatta aagagatcac ccctctctc caacctggtg atgtcctcgt cgacgggtggt  
60  
aatgcttatt ttggtgatac ccgccgccgt gaggaggaaa tacgtccac cggcattcac  
120  
tatgttggtg ctggcatctc cgggtggggga gtcggggccc tgagggtccc atcaattatg  
180  
cctggcgggg ttaaggaatc ttacgaaatc atcggaccgg tcttagaaaa aatctccgcc  
240  
cacgtcgacg gtgaaccctg ctgcgcatgg atgggtactg acggcgccgg acacttcgtc  
300

aagatgggtcc ataatggcat cgagtacgcc gatatgcagt tcattggcga ggcgcccttc  
 360  
 ctttttgcgn tgcccgcggg tttgaccaat gctgaggccg ccgatgcctt cgagtcgtgg  
 420  
 aaccatggcg acctcaattc ctacctcgtc gaaatcactt ctcggtact gcgtgccaag  
 480  
 gat  
 483

<210> 398  
 <211> 161  
 <212> PRT  
 <213> Homo sapiens

<400> 398  
 Ala Val Ile Lys Glu Ile Thr Pro Leu Leu Gln Pro Gly Asp Val Leu  
 1 5 10 15  
 Val Asp Gly Gly Asn Ala Tyr Phe Gly Asp Thr Arg Arg Arg Glu Glu  
 20 25 30  
 Glu Ile Arg Pro Thr Gly Ile His Tyr Val Gly Thr Gly Ile Ser Gly  
 35 40 45  
 Gly Gly Val Gly Ala Leu Arg Val Pro Ser Ile Met Pro Gly Gly Val  
 50 55 60  
 Lys Glu Ser Tyr Glu Ile Ile Gly Pro Val Leu Glu Lys Ile Ser Ala  
 65 70 75 80  
 His Val Asp Gly Glu Pro Cys Cys Ala Trp Met Gly Thr Asp Gly Ala  
 85 90 95  
 Gly His Phe Val Lys Met Val His Asn Gly Ile Glu Tyr Ala Asp Met  
 100 105 110  
 Gln Phe Ile Gly Glu Ala Pro Phe Leu Phe Ala Xaa Pro Ala Gly Leu  
 115 120 125  
 Thr Asn Ala Glu Ala Ala Asp Ala Phe Glu Ser Trp Asn His Gly Asp  
 130 135 140  
 Leu Asn Ser Tyr Leu Val Glu Ile Thr Ser Arg Val Leu Arg Ala Lys  
 145 150 155 160  
 Asp

<210> 399  
 <211> 314  
 <212> DNA  
 <213> Homo sapiens

<400> 399  
 nngggaatga agaccacca gcccttcctt tcctcaaata ttctccaggc ttctgtgcat  
 60  
 ggctcatcca cccatccact cattcaccca tctatccatc cactcatcca cccatccagt  
 120  
 cattcactca ttgtccatc cactcatgta cccatccact cattcgcca tttatccatc  
 180  
 cactcaacca tccactcatc caccatcca nctcatcatc cgtccagtca cccatctatc  
 240  
 caccatgta tccatccact catcaccca tccactcatc tgtccatcca cttatccacc  
 300

catctactca ccca

314

&lt;210&gt; 400

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 400

Xaa	Gly	Met	Lys	Thr	Thr	Gln	Pro	Phe	Leu	Ser	Ser	Asn	Leu	Leu	Gln
1				5					10					15	
Ala	Ser	Val	His	Gly	Ser	Ser	Thr	His	Pro	Leu	Ile	His	Pro	Ser	Ile
			20				25						30		
His	Pro	Leu	Ile	His	Pro	Ser	Ser	His	Ser	Leu	Ile	Cys	Pro	Ser	Thr
	35					40					45				
His	Val	Pro	Ile	His	Ser	Phe	Ala	His	Leu	Ser	Ile	His	Ser	Thr	Ile
	50					55					60				
His	Ser	Ser	Thr	His	Pro	Xaa	His	His	Pro	Ser	Ser	His	Pro	Ser	Ile
65					70					75				80	
His	Pro	Cys	Ile	His	Pro	Leu	Ile	His	Pro	Ser	Thr	His	Leu	Ser	Ile
			85						90					95	
His	Leu	Ser	Thr	His	Leu	Leu	Thr								
															100

&lt;210&gt; 401

&lt;211&gt; 2165

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 401

gagaaaatgg aactacctgt atataaatta ggtgagcaaa cagtgatata ggtagtttta  
60  
agaagcaaat atatacagtc aatttaacag tgtttacttc tctggattgt ttaatgggtgt  
120  
caaaatgaaa gatctattga agtttcacta tacattgcat tgattgaacc ttggagagtt  
180  
ttatgaaaaa gaggggcatc ccttgccatc tgtttgccag tcttccttgc cccttccttt  
240  
gaaatgcctg cctctttttt gccagattg tttcctgacc atccgaactc agatgggggc  
300  
ctctaagttc ttcttgata ttcacaaatc ccttcacaag gccacgtgc gaagtgaatg  
360  
atctggaggt gcctgggcat ctgtgttgga agggagtcaa gactcaccag ccagtcagtt  
420  
tgtgggctac agttgtccca caaaaatcag gcatgttcac ctcccctctg ggcccctaca  
480  
gctgggactg atcatagcct cagattagaa gaaatactga cttctaactc tataagccag  
540  
cactcctggg taaggagtga agctctgttg gccatgccgc tttggactgc tgggcagagc  
600  
tgagcctaca gttttgtact ggggtgcacg gatgacagct gggaagatgg aaaggcagct  
660  
tgaggattta tagcagctaa agggtaaagt ctgttatgca aaagggtccc atatgaactt  
720

cctacaggtg tagccgcagc caagtgtctg tacagctgct gagaatttgt cggatgatga  
780  
aaaattcctc tttgcatcac aagcgagtgg aaagccaggg gctgcatgag tggagaaagc  
840  
acagtctggt ttttcaagta ctgcagagaa tgagaatacc cagccgggag cctggagttg  
900  
aggcccaggt tacacaggct cccggaatac agacctggga agatagggga ggagagggga  
960  
agcttgtggc cttttgatcc gccccggaa tgcccaccgt gcgctgcttt gctgccttca  
1020  
tctcctgctc agaggccttc tccttcccag agacctcctt ggatgggtct aaggagaca  
1080  
ctgcccgggc ctttttcctt gcaatcaciaa ggtccaaatc ctccaggctg cgcttgatcg  
1140  
gccgcgccgc cccaatgttc tacgggtcga ttttccgggt caggattggg tggaccatgc  
1200  
cttccatctt cctgaaattc tccagtctca catggtgagg ttttctgat cttgaaagcg  
1260  
attcagggta ttttttaggg cctgacatgg tcatgggtga taccgacag gctttggggt  
1320  
gacagtctcg actctggctg cctaagacct ggaactggga gatgcctttg ctctcctggg  
1380  
gccctgtggt ggaatgagcc agggccagga ccttgccggg aggtttgtgc gggttcttgg  
1440  
gaaggctcag atctgtaggc tgatcatccg taggggcttc tgctgccgcc gactttttgt  
1500  
cttgacaggtg caggacgtg agataattta catggagctt ttcttggtgt ctgtgggaag  
1560  
gaaaagaact gttttccgat tcctgtaca tgtccctgga agggatattg gatgtctgtt  
1620  
cattatgaag atggtgctcg gtgtgtctgt agaggctatg gagatgaggg gacgagtaga  
1680  
agtcagccag gaagctaggg atgtgggaat gggggagggc ctttttctct aagagtttat  
1740  
ccttgccctc ctgaatttct tgcttcagga cgtaggagtc agcaaggggg ttaaggtgat  
1800  
gcttgagaa gctgcagcgg tggggatctg atcgactcag tttctcatgc ttaaagatgt  
1860  
cattgatggt ctttctctct tccgagggct tgcttctgaa actctggacg tgctgaatca  
1920  
ctgatggccg gctgaccgcc atatggctcag tgctttggcc atggtgggtc tgggacaaac  
1980  
tggaacacaa gtcatecccta gcaatcagtt tctttttgct gatcaaaggg ggtggggagc  
2040  
cataagggta gctgctggag aggctggccc cactcacttg ggacaaaagc tttttcttgg  
2100  
ccagtgggga catcatgcct gggttgcccc tagagtagag caggggcgtg taattaagtc  
2160  
catgg  
2165

&lt;210&gt; 402

&lt;211&gt; 87

&lt;212&gt; PRT

<213> Homo sapiens

<400> 402

```

Glu Tyr Pro Ala Gly Ser Leu Glu Leu Arg Pro Glu Leu His Arg Leu
 1           5           10           15
Pro Glu Tyr Arg Pro Gly Lys Ile Gly Glu Glu Arg Gly Ser Leu Trp
          20           25           30
Pro Phe Asp Pro Pro Pro Glu Cys Pro Pro Cys Ala Ala Leu Leu Pro
          35           40           45
Ser Ser Pro Ala Gln Arg Pro Ser Pro Ser Gln Arg Pro Pro Trp Met
          50           55           60
Gly Leu Arg Glu Thr Leu Pro Gly Pro Phe Ser Leu Gln Ser Gln Gly
65           70           75           80
Pro Asn Pro Pro Gly Cys Ala
          85

```

<210> 403

<211> 369

<212> DNA

<213> Homo sapiens

<400> 403

```

cccatgggtg tgtcccagga cggcgatcatg aagcgatcagg taaatgacaa ggaaacgggc
60
gcgcaattgt tcgaatacac gacgcaagtg tctgtcgact cgacgccgca actcgatccag
120
ccttcgcccc cgatcgacga caacctcgtg cctgtccaga tgatcttttg cttcaagcag
180
cgcaacgcga aaaagatcaa tagccaccgc tgggtatttc atgcactggg ccgcatgcta
240
cagcccgaca tggatcgtctt ggtggacgtc ggcacgaagc ccggccacct cgccctatac
300
catctatggc aggcattcta tcaccgacct accttgggag gtgcttgagg cgaaattcat
360
gctatgatc
369

```

<210> 404

<211> 123

<212> PRT

<213> Homo sapiens

<400> 404

```

Pro Met Gly Val Ser Gln Asp Gly Val Met Lys Arg Gln Val Asn Asp
 1           5           10           15
Lys Glu Thr Val Ala His Leu Phe Glu Tyr Thr Thr Gln Val Ser Val
          20           25           30
Asp Ser Thr Pro Gln Leu Val Gln Pro Ser Pro Thr Ser His Asp Asn
          35           40           45
Leu Val Pro Val Gln Met Ile Phe Cys Phe Lys Gln Arg Asn Ala Lys
          50           55           60
Lys Ile Asn Ser His Arg Trp Val Phe His Ala Leu Gly Arg Met Leu
65           70           75           80
Gln Pro Asp Met Val Val Leu Val Asp Val Gly Thr Lys Pro Gly His

```

	85		90		95
Leu	Ala	Leu	Tyr	His	Leu
		Trp	Gln	Ala	Phe
				Tyr	His
				Arg	Pro
					Thr
					Leu
	100		105		110
Gly	Gly	Ala	Cys	Gly	Glu
		Ile	His	Ala	Met
				Ile	
	115		120		

<210> 405  
 <211> 840  
 <212> DNA  
 <213> Homo sapiens

<400> 405  
 gaattcccgc gcaccagctc gaagctggag cactttgtgt ctatcctgct gaagtgcttc  
 60  
 gactcgccct ggaccacgag ggccctgtcg gagacagtgg tggaggagag cgaccccaag  
 120  
 ccggccttca gcaagatgaa tgggtccatg gacaaaaagt catcgaccgt cagtgaggac  
 180  
 gtggaggcca ccgtgcccac gctgcagcgg accaagtcac ggatcgagca gggatatcgtg  
 240  
 gaccgctcag agacgggcgt gctggacaag aaggaggggg agcaagccaa ggcgctgttt  
 300  
 gagaaggtga agaagttccg gacccatgtg gaggaggggg acattgtgta ccgcctctac  
 360  
 atgcggcaga ccatcatcaa ggtgatcaag ttcatectca tcatctgcta caccgtctac  
 420  
 tacgtgcaca acatcaagtt cgacgtggac tgcaccgtgg acattgagag cctgacgggc  
 480  
 taccgcacct accgctgtgc ccacccctg gccacactct tcaagatcct ggcgtccttc  
 540  
 tacatcagcc tagtcatctt ctacggcctc atctgcatgt atacactgtg gtggatgcta  
 600  
 cggcgtccc tcaagaagta ctcgtttgag tcgatccgtg aggagagcag ctacagcgac  
 660  
 atccccgacg tcaagaacga cttcgccttc atgctgcacc tcattgacca atacgacccg  
 720  
 ctctactcca agcgcttcgc cgtcttcttg tcggagggtga gtgagaacaa gctgcggcag  
 780  
 ctgaacctca acaacgagtg gacgctggac aagctccggt acggagagaa gacaacgcgt  
 840

<210> 406  
 <211> 91  
 <212> PRT  
 <213> Homo sapiens

<400> 406  
 Leu Ile Cys Met Tyr Thr Leu Trp Trp Met Leu Arg Arg Ser Leu Lys  
 1 5 10 15  
 Lys Tyr Ser Phe Glu Ser Ile Arg Glu Glu Ser Ser Tyr Ser Asp Ile  
 20 25 30  
 Pro Asp Val Lys Asn Asp Phe Ala Phe Met Leu His Leu Ile Asp Gln  
 35 40 45  
 Tyr Asp Pro Leu Tyr Ser Lys Arg Phe Ala Val Phe Leu Ser Glu Val



50		55		60												
Ser	Glu	Asn	Lys	Leu	Arg	Gln	Leu	Asn	Leu	Asn	Asn	Glu	Trp	Thr	Leu	
65					70					75					80	
Asp	Lys	Leu	Arg	Tyr	Gly	Glu	Lys	Thr	Thr	Arg						
				85					90							

<210> 407  
 <211> 535  
 <212> DNA  
 <213> Homo sapiens

<400> 407  
 gcctattgta ccagctctcc agggctgggg acttgctaga gcagggttcc cagtgtcccc  
 60  
 aggtcttact ttgtcttgcc tggcttcagg gtgtagggga tggagagctg gacttccagc  
 120  
 ctgtttcttg gctgtctagg ggccaggggc tcgggacaca gagctcctgg aggccgagca  
 180  
 caagccttgg gcagaggtga ggcagagctc tgactgtttc attcgactac gttgccaagg  
 240  
 agatgctcgc tcggagtggg tgctctgggt ctgggattcc aaaccaagct gccttctctg  
 300  
 atgtggcctt agtgctctgg gcggatgtac cttggctctg cctggaccct ctctctcttc  
 360  
 caggcctctg tcccaccagg atgatgccta tccagagctc attgtcctct cccacttcct  
 420  
 ccccgagctt cccattccgt gtctctctgg agggcccatc atcatcctgg tggaggtgtt  
 480  
 gcactgagga ccacagcagc cctcgcatte ccacgggcaa aggggtatgt gtagg  
 535

<210> 408  
 <211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 408  
 Met Leu Ala Arg Ser Gly Cys Ser Gly Ser Gly Ile Pro Asn Gln Ala  
 1 5 10 15  
 Ala Phe Ser Asp Val Ala Leu Val Leu Trp Ala Asp Val Pro Trp Leu  
 20 25 30  
 Cys Leu Asp Pro Leu Ser Leu Pro Gly Leu Cys Pro Thr Arg Met Met  
 35 40 45  
 Pro Ile Gln Ser Ser Leu Ser Ser Pro Thr Ser Ser Pro Ser Phe Pro  
 50 55 60  
 Phe Arg Val Ser Leu Glu Gly Pro Ser Ser Ser Trp Trp Arg Cys Cys  
 65 70 75 80  
 Thr Glu Asp His Ser Ser Pro Arg Ile Pro Thr Gly Lys Gly Val Cys  
 85 90 95  
 Val

<210> 409  
 <211> 375

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 409

ngtgtcatgg gtgtctatac cagcgatgag gccaaagactg ccaagacttt tggatttggg  
 60  
 ggacttccga ttacgactaa tatttctctt gccacaact tcaatatgga tgaaatttct  
 120  
 gatattgtct tccgtgtcaa tgataccagt ttgacaccaa ctgtgggacc agaattagct  
 180  
 agaaaattga ccgaaattgc tggctcttcag caaggggagt atcaggtgtc agatgcgact  
 240  
 gcagccttcc aagaagtgc acaattgttc ggctttataa ctacgattat tagtgccatt  
 300  
 gcaggaattt ccttttttgt tggagggact ggtgttatga acatcatgct ggtttcgggtg  
 360  
 acggagcgta cgcgt  
 375

&lt;210&gt; 410

&lt;211&gt; 125

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 410

Xaa	Val	Met	Gly	Val	Tyr	Thr	Ser	Asp	Glu	Ala	Lys	Thr	Ala	Lys	Thr
1				5					10					15	
Phe	Gly	Ile	Gly	Gly	Leu	Pro	Ile	Thr	Thr	Asn	Ile	Ser	Leu	Ala	Asn
			20					25					30		
Asn	Phe	Asn	Met	Asp	Glu	Ile	Ser	Asp	Ile	Val	Phe	Arg	Val	Asn	Asp
		35					40					45			
Thr	Ser	Leu	Thr	Pro	Thr	Val	Gly	Pro	Glu	Leu	Ala	Arg	Lys	Leu	Thr
		50				55					60				
Glu	Ile	Ala	Gly	Leu	Gln	Gln	Gly	Glu	Tyr	Gln	Val	Ser	Asp	Ala	Thr
65				70				75						80	
Ala	Ala	Phe	Gln	Glu	Val	Gln	Gln	Leu	Phe	Gly	Phe	Ile	Thr	Thr	Ile
			85					90						95	
Ile	Ser	Ala	Ile	Ala	Gly	Ile	Ser	Leu	Phe	Val	Gly	Gly	Thr	Gly	Val
		100					105						110		
Met	Asn	Ile	Met	Leu	Val	Ser	Val	Thr	Glu	Arg	Thr	Arg			
		115					120					125			

&lt;210&gt; 411

&lt;211&gt; 409

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 411

ccacatactt caccctcctc accccctcca cctactccac cacctggcag tcgccatcga  
 60  
 ggatgggacg caactccacg tccacatgct ccggaccacg cggcgtgtgg tggatgtgca  
 120  
 gcacgcggtc ggggcccctt gagctcgaag gcgcggcgca tcgggcagtg ctgcgccggcc  
 180

tgggtcgcagg gcacgtcgta ctggtgagag acgcggaagc acttgtggcc gatgtaggcg  
 240  
 cgatcggctg tcccgaactg gcgctgatag gccgtgtaca caacacaaac tgttgtactc  
 300  
 ccggtccacc acgatcatgg gctgggactc gtgttccagg tggggggcca gggcttgggc  
 360  
 ctgcggtgag cgcgtggggg ggatggggca tagcgtcggg gaggagggtg  
 409

<210> 412  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 412  
 Met Pro His Pro Pro His Ala Leu Thr Ala Gly Pro Ser Pro Gly Pro  
 1 5 10 15  
 Pro Pro Gly Thr Arg Val Pro Ala His Asp Arg Gly Gly Pro Gly Val  
 20 25 30  
 Gln Gln Phe Val Leu Cys Thr Arg Pro Ile Ser Ala Ser Ser Gly Gln  
 35 40 45  
 Pro Ile Ala Pro Thr Ser Ala Thr Ser Ala Ser Ala Ser Arg Thr Ser  
 50 55 60  
 Thr Thr Cys Pro Ala Thr Arg Pro Ala Ser Thr Ala Arg Cys Ala Ala  
 65 70 75 80  
 Pro Ser Ser Ser Arg Gly Pro Asp Arg Val Leu His Ile His His Thr  
 85 90 95  
 Pro Arg Gly Pro Glu His Val Asp Val Glu Leu Arg Pro Ile Leu Asp  
 100 105 110  
 Gly Asp Cys Gln Val Val Glu  
 115

<210> 413  
 <211> 357  
 <212> DNA  
 <213> Homo sapiens

<400> 413  
 ccgggcatcc caccaccggg tgtcatgaac caagtagtgg cccctatggg agggactcca  
 60  
 gcaccgggtg gaagtccata tggacaacag gtgggagttt tggggcctcc agggcagcag  
 120  
 gcaccacctc catatcccgg cccacatcca gctggacccc ctgtcataca gcagccaaca  
 180  
 acacccatgt ttgtagctcc cccccaaag acccagcggc ttcttctactc agaggcctac  
 240  
 ctgaaatata ttgaaggact cagtgcggag tccaacagca ttagcaagtg ggatcagaca  
 300  
 ctggcagctc ggagacgcga cgtccatttg tcgaaagaac aggagagccg cctaccc  
 357

<210> 414  
 <211> 119  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 414

```

Pro Gly Ile Pro Pro Pro Gly Val Met Asn Gln Val Val Ala Pro Met
 1           5           10           15
Val Gly Thr Pro Ala Pro Gly Gly Ser Pro Tyr Gly Gln Gln Val Gly
          20           25           30
Val Leu Gly Pro Pro Gly Gln Gln Ala Pro Pro Pro Tyr Pro Gly Pro
          35           40           45
His Pro Ala Gly Pro Pro Val Ile Gln Gln Pro Thr Thr Pro Met Phe
          50           55           60
Val Ala Pro Pro Pro Lys Thr Gln Arg Leu Leu His Ser Glu Ala Tyr
65           70           75           80
Leu Lys Tyr Ile Glu Gly Leu Ser Ala Glu Ser Asn Ser Ile Ser Lys
          85           90           95
Trp Asp Gln Thr Leu Ala Ala Arg Arg Arg Asp Val His Leu Ser Lys
          100          105          110
Glu Gln Glu Ser Arg Leu Pro
          115

```

&lt;210&gt; 415

&lt;211&gt; 332

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 415

```

tctagagcca acttggttat cgtaatgaat agagagacta catctatatc aattattacg
60
ctctatagta atcatgaagc ttgggttata tgtatgacaa aaattgcaga aaaatcgaaa
120
caagaatatg gcgacttact aaaagaaaaa gaccatttac aagatatgga acagcttgag
180
atgactatcg tctcgatcca tacgccgtat ccgtccattg tcagaattca aggaaaaatc
240
aacacattac agccagagct ttggcaagct cccaatttag caattcggtt aattgtgagc
300
aatccgccag aggacaacc catctcacgc gt
332

```

&lt;210&gt; 416

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 416

```

Met Asn Arg Glu Thr Thr Ser Ile Ser Ile Ile Thr Leu Tyr Ser Asn
 1           5           10           15
His Glu Ala Trp Val Ile Cys Met Thr Lys Ile Ala Glu Lys Ser Lys
          20           25           30
Gln Glu Tyr Gly Asp Leu Leu Lys Glu Lys Asp His Leu Gln Asp Met
          35           40           45
Glu Gln Leu Glu Met Thr Ile Val Ser Ile His Thr Pro Tyr Pro Ser
          50           55           60
Ile Val Arg Ile Gln Gly Lys Ile Asn Thr Leu Gln Pro Glu Leu Trp

```

```
<210> 417
<211> 483
<212> DNA
<213> Homo sapiens
```

```
<210> 418
<211> 161
<212> PRT
<213> Homo sapiens
```

<400> 418																
Glu	Phe	Leu	Ala	Val	Ser	Glu	Val	Gly	Glu	Asp	Thr	Phe	Val	Arg	Ser	
1				5					10					15		
Thr	Glu	Gly	Asp	Tyr	Ala	Ala	Asn	Val	Glu	Ala	Val	Val	Thr	Pro	Ala	
			20					25					30			
Pro	Ala	Glu	Lys	Asp	Ile	Glu	Gly	Gln	Pro	Glu	Ala	Gln	Glu	His	Asp	
		35					40					45				
Thr	Pro	Gly	Thr	Glu	Thr	Ile	Glu	Lys	Leu	Val	Glu	Trp	Ala	Gln	Gly	
	50					55					60					
Ala	Gly	Ile	Thr	Val	Asn	Pro	Arg	Val	Val	Cys	Tyr	Tyr	Thr	Leu	Lys	
65					70					75					80	
Cys	Met	Met	Ile	Lys	Leu	His	His	Pro	Ala	Ala	Glu	Ser	Glu	Glu	Arg	
				85					90					95		
Glu	Ser	Glu	Leu	Ala	Ala	Val	Leu	Ile	Pro	Gly	Asp	Arg	Glu	Leu	Asp	
			100					105					110			
Glu	Lys	Arg	Leu	Glu	Ala	Ala	Leu	Glu	Pro	Val	Glu	Phe	Glu	Leu	Ala	
		115					120					125				
Gly	Asp	Lys	Asp	Phe	Ala	Asp	Asn	Asp	Phe	Leu	Val	Lys	Gly	Tyr	Val	

130	135	140
Gly Pro Arg Ala Leu Asn Ala Asn Gly Ile Lys Val Leu Ala Asp Pro		
145	150	155
Arg		160

<210> 419  
 <211> 797  
 <212> DNA  
 <213> Homo sapiens

<400> 419  
 atttcacccc aggaaaacca gtaaggacca atgattaagc ccaagggttg gtaccgagtt  
 60  
 cggatccata agtaccggcc gccagggtg ctggaatttg ggctcccccc ggtgaaaata  
 120  
 tccatgcagc cgcgttgtct taggtagaaa agggagactg gggtaggggtg ggctgagctc  
 180  
 aagcccctgc ctacatactt tagtagtaac gactcccgat ctgcatccaa cacatttacc  
 240  
 gaacttctag taagcgcccc ccgctgcaag cgaaagcact cccctgcaa gaaacagatc  
 300  
 ttttccactt aaaattccca aactcagacc ttccactttt tactgaacaa aaagcgtgta  
 360  
 catgatctga agggttgaca tgacattttc taaattgggc gaatcaggaa gaggttgatg  
 420  
 aaaatccttg acgttttctg gggataggac atttgtgtgt gataacgttc ttaagtcgaa  
 480  
 tttcagtgtg gcagtgcacg cagattcttc attgggtgta gtgtatttcc atacgggatg  
 540  
 tattagtaca agaaatagtg ttccctttga cactcgaacc caaggagtgg tccgaggctt  
 600  
 tttgaggcaa cgtaggatca atgtctctga agcagatttg gtgaaggatg caggtctcat  
 660  
 aatttacaga gcaatcacag ccttctttga aacggagaaa ttagattcta tgaaattttg  
 720  
 tcagtgcaga tagatatgat gtggagaaac ggggaaaatt gagtacaaaa agatgaggct  
 780  
 tgaatgatgg ctggcca  
 797

<210> 420  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 420  
 Met Arg Pro Ala Ser Phe Thr Lys Ser Ala Ser Glu Thr Leu Ile Leu  
 1 5 10 15  
 Arg Cys Leu Lys Lys Pro Arg Thr Thr Pro Trp Val Arg Val Ser Lys  
 20 25 30  
 Gly Thr Leu Phe Leu Val Leu Ile His Thr Val Trp Lys Tyr Thr Asn  
 35 40 45  
 Thr Asn Glu Glu Ser Ala Cys Thr Ala Thr Leu Lys Phe Asp Leu Arg

50		55		60											
Thr	Leu	Ser	His	Thr	Asn	Val	Leu	Ser	Pro	Glu	Asn	Val	Lys	Asp	Phe
65					70				75						80
His	Gln	Pro	Leu	Pro	Asp	Ser	Pro	Asn	Leu	Glu	Asn	Val	Met	Ser	Thr
			85					90						95	
Leu	Gln	Ile	Met	Tyr	Thr	Leu	Phe	Val	Gln						
			100					105							

<210> 421  
 <211> 406  
 <212> DNA  
 <213> Homo sapiens

<400> 421  
 ggatccacca tgatggagcc caccaccca tcctcagtc acctgctgca gcttctccat  
 60  
 aacccaacac aggtcaatct tgtctcccta aacacacat gtgctctcat gctgccatgg  
 120  
 tttgcctggg gccctctcta cctcctctgc tttctggaga acccttgcac tcctcccaag  
 180  
 ccttcaagtt ggaaagtga cagtcagcat atgtctctag ctcagccctt actgcgtgga  
 240  
 ttcatagaaga ttggttcact gtcagccctt gaccagaacg tgtgttttag gaaagcagga  
 300  
 accaagtctt accaatgtct gtagtcccag cctccaccct ggcatacagt aggtgctcat  
 360  
 tgaatgtggg agggaaagag gagacacatg gaagggaatg tcattc  
 406

<210> 422  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 422
Met Met Glu Pro Thr His Pro Ser Ser Val His Leu Leu Gln Leu Leu
1 5 10 15
His Asn Pro Thr Gln Val Asn Leu Val Ser Leu Asn Thr Pro Cys Ala
20 25 30
Leu Met Leu Pro Trp Phe Ala Trp Gly Pro Leu Tyr Leu Leu Cys Phe
35 40 45
Leu Glu Asn Pro Cys Thr Pro Pro Lys Pro Ser Ser Trp Lys Val Asn
50 55 60
Ser Gln His Met Ser Leu Ala Gln Pro Leu Leu Arg Gly Phe Met Lys
65 70 75 80
Ile Gly Ser Leu Ser Ala Pro Asp Gln Asn Val Cys Phe Arg Lys Ala
85 90 95
Gly Thr Lys Ser Tyr Gln Cys Leu
100

<210> 423  
 <211> 628  
 <212> DNA  
 <213> Homo sapiens

&lt;400&gt; 423

ngccacccta cgcctcgcct gcaatggcaa cttcagatcc ccggtggcac cgtagtctta  
60  
gagccaccgg ttctgagcgg ggaggacgac ggggttgggg cggaggaagg agagggagaa  
120  
ggagatgggg atttgctgac gcagacccaa gcccaaacgc cgactccagc acccgcttgg  
180  
ccggcgcccc cagccacacc gcgcttcttg gccctcgcaa atggctccct gttggtgccc  
240  
ctctgagtg ccaaggaggc gggcgtctac acttgccgtg cacacaatga gctgggcgcc  
300  
aactctacgt caatacgcgt ggcggtggca gcaaccgggc cccaaaaca cgcgcctggc  
360  
gccgggggag aaccgacgg acaggccccg acctctgagc gcaagtccac agccaagggc  
420  
cggggcaaca gcgtcctgcc ttccaaaccc gagggcaaaa tcaaaggcca aggcctggcc  
480  
aaggtcagca ttctcgggga gaccgagacg gagccggagg aggacacaag tgagggagag  
540  
gaggccgaag accagatcct cgcggacccg gcggaggagc agcgctgtgg caacggggac  
600  
ccctctcggg acgtttctaa ccacgcgt  
628

&lt;210&gt; 424

&lt;211&gt; 209

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 424

Xaa	His	Pro	Thr	Pro	Arg	Leu	Gln	Trp	Gln	Leu	Gln	Ile	Pro	Gly	Gly	
1				5				10						15		
Thr	Val	Val	Leu	Glu	Pro	Pro	Val	Leu	Ser	Gly	Glu	Asp	Asp	Gly	Val	
			20					25					30			
Gly	Ala	Glu	Glu	Gly	Glu	Gly	Glu	Gly	Asp	Gly	Asp	Leu	Leu	Thr	Gln	
			35				40					45				
Thr	Gln	Ala	Gln	Thr	Pro	Thr	Pro	Ala	Pro	Ala	Trp	Pro	Ala	Pro	Pro	
	50					55					60					
Ala	Thr	Pro	Arg	Phe	Leu	Ala	Leu	Ala	Asn	Gly	Ser	Leu	Leu	Val	Pro	
65				70						75				80		
Leu	Leu	Ser	Ala	Lys	Glu	Ala	Gly	Val	Tyr	Thr	Cys	Arg	Ala	His	Asn	
				85					90					95		
Glu	Leu	Gly	Ala	Asn	Ser	Thr	Ser	Ile	Arg	Val	Ala	Val	Ala	Ala	Thr	
			100					105						110		
Gly	Pro	Pro	Lys	His	Ala	Pro	Gly	Ala	Gly	Gly	Glu	Pro	Asp	Gly	Gln	
			115				120						125			
Ala	Pro	Thr	Ser	Glu	Arg	Lys	Ser	Thr	Ala	Lys	Gly	Arg	Gly	Asn	Ser	
			130			135						140				
Val	Leu	Pro	Ser	Lys	Pro	Glu	Gly	Lys	Ile	Lys	Gly	Gln	Gly	Leu	Ala	
145				150						155				160		
Lys	Val	Ser	Ile	Leu	Gly	Glu	Thr	Glu	Thr	Glu	Pro	Glu	Glu	Asp	Thr	
			165					170						175		
Ser	Glu	Gly	Glu	Glu	Ala	Glu	Asp	Gln	Ile	Leu	Ala	Asp	Pro	Ala	Glu	



			180					185				190			
Glu	Gln	Arg	Cys	Gly	Asn	Gly	Asp	Pro	Ser	Arg	Tyr	Val	Ser	Asn	His
			195				200					205			
Ala															

<210> 425  
 <211> 471  
 <212> DNA  
 <213> Homo sapiens

<400> 425  
 ccggccgctcg aagactttga ggacgatgta gctcgcagcg cagcggttacg agccctggag  
 60  
 tacgtggatt tgaccccagg cactnaagtg cgcgtcatcg ccattgacac cgtgttccta  
 120  
 ggatcgtgca cgaatggccg tgaggactta cggctggctg ctgagggttcc caaaggacga  
 180  
 catatcgcag cgggcacccg gatgctcgtc gcccctggat ctgctcgtgt ccgtctgcag  
 240  
 gctatggagg aaggcctcga cgagatcggg tcccggtttg ctgacatctt tcgcaataac  
 300  
 tctgcgaaca atggcttggt actggctcag gttgaccccg aggtcgtcga agagttgtgg  
 360  
 gactttgccg agcagcatcc tggtgagcag ctcaccgtct ccctcgagaa tcggacgatc  
 420  
 aaccttccgg gtcgcacgac ctaccggttc catattgatg acgtcacgcg t  
 471

<210> 426  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens

<400> 426  
 Pro Ala Val Glu Asp Phe Glu Asp Asp Val Ala Arg Ser Ala Ala Leu  
 1 5 10 15  
 Arg Ala Leu Glu Tyr Val Asp Leu Thr Pro Gly Thr Xaa Val Arg Val  
 20 25 30  
 Ile Ala Ile Asp Thr Val Phe Leu Gly Ser Cys Thr Asn Gly Arg Glu  
 35 40 45  
 Asp Leu Arg Leu Ala Ala Glu Val Pro Lys Gly Arg His Ile Ala Ala  
 50 55 60  
 Gly Thr Arg Met Leu Val Ala Pro Gly Ser Ala Arg Val Arg Leu Gln  
 65 70 75 80  
 Ala Met Glu Glu Gly Leu Asp Glu Ile Gly Ser Arg Phe Ala Asp Ile  
 85 90 95  
 Phe Arg Asn Asn Ser Ala Asn Asn Gly Leu Leu Leu Ala Gln Val Asp  
 100 105 110  
 Pro Glu Val Val Glu Glu Leu Trp Asp Phe Ala Glu Gln His Pro Gly  
 115 120 125  
 Glu Gln Leu Thr Val Ser Leu Glu Asn Arg Thr Ile Asn Leu Pro Gly  
 130 135 140  
 Arg Thr Thr Tyr Pro Phe His Ile Asp Asp Val Thr Arg

145

150

155

<210> 427  
 <211> 546  
 <212> DNA  
 <213> Homo sapiens

&lt;400&gt; 427

ctagcggtag tagaagggtat gcagtttgat cgcggctact tgtctccgta tttcatcaac  
 60  
 aatcaagaaa caatgaatgc agagctagaa aaccatttta ttcttcttgt tgataagaaa  
 120  
 atttctaata tccgtgactt gctaccaatt ttggaagggtg ttgctaaagc atcgcgccca  
 180  
 ttgttgatca ttgcggaaga cggtgaaggc gaagcggtgg caaccttggg tggttaacact  
 240  
 atgcgcggca tcgtaaaagt agcggcagcg aaagcgccag gttttggtga tcgccgtaaa  
 300  
 gcaatgcttc aagacattgc tgtgctaacg ggttcaactg ttatttcaga agaaattggc  
 360  
 attaagcttg aagaagcgac aattgaacag ttgggtacag cgaagcgcg tacattgaca  
 420  
 aaagaaagta caacgattgt tgatggtgcg ggtggtgcag ctaatattac tggtcgtgtt  
 480  
 gagcaaattc gtgcagaaat tgctaactct tcttctggct acgataaaga gaaattgcaa  
 540  
 gaacgc  
 546

<210> 428  
 <211> 182  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 428

Leu	Ala	Val	Val	Glu	Gly	Met	Gln	Phe	Asp	Arg	Gly	Tyr	Leu	Ser	Pro
1				5					10					15	
Tyr	Phe	Ile	Asn	Asn	Gln	Glu	Thr	Met	Asn	Ala	Glu	Leu	Glu	Asn	Pro
			20					25					30		
Phe	Ile	Leu	Leu	Val	Asp	Lys	Lys	Ile	Ser	Asn	Ile	Arg	Asp	Leu	Leu
		35				40					45				
Pro	Ile	Leu	Glu	Gly	Val	Ala	Lys	Ala	Ser	Arg	Pro	Leu	Leu	Ile	Ile
		50				55					60				
Ala	Glu	Asp	Val	Glu	Gly	Glu	Ala	Leu	Ala	Thr	Leu	Val	Val	Asn	Thr
65				70					75					80	
Met	Arg	Gly	Ile	Val	Lys	Val	Ala	Ala	Ala	Lys	Ala	Pro	Gly	Phe	Gly
			85					90					95		
Asp	Arg	Arg	Lys	Ala	Met	Leu	Gln	Asp	Ile	Ala	Val	Leu	Thr	Gly	Ser
			100					105					110		
Thr	Val	Ile	Ser	Glu	Glu	Ile	Gly	Ile	Lys	Leu	Glu	Glu	Ala	Thr	Ile
		115				120						125			
Glu	Gln	Leu	Gly	Thr	Ala	Lys	Arg	Val	Thr	Leu	Thr	Lys	Glu	Ser	Thr
		130				135						140			
Thr	Ile	Val	Asp	Gly	Ala	Gly	Val	Ala	Ala	Asn	Ile	Thr	Gly	Arg	Val

<400>	430
Met	Gln Gln Trp Leu Arg Gln Leu Ala Arg Cys Ser Arg Ser Arg Ile
1	5 10 15
His	Leu Leu Leu Val Asp Arg Arg Ser Lys Val His His Trp Ala Val
	20 25 30
Arg	Pro Lys Ala Val His Leu Ser Cys Lys Ala Gln Pro Pro Gln Gly
	35 40 45
Phe	Leu Asn Thr Pro Val Cys Leu Cys Leu Thr His Asn Ala Lys Asn
	50 55 60
Ser	Ser Gln Gly Pro Cys Glu Pro Leu Pro Gly Pro Leu Thr Gln Pro
65	70 75 80
Arg	Ala His Ala Ser Pro Phe Ser Gly Ala Leu Thr Pro Ser Ala Pro
	85 90 95
Pro	Gly Pro Glu Met Asn Arg Ser Ala Glu Val Gly Pro Ser Ser Glu
	100 105 110
Pro	Glu Val Gln Thr Leu Pro Tyr Leu Pro His Tyr Ile Pro Gly Val
	115 120 125
Asp	Pro
	130

<210> 431  
 <211> 192  
 <212> DNA  
 <213> Homo sapiens

<400> 431  
 ctagccatcc accagcgtac acacacggga gagaggccct acactggcct cgggtgcaac  
 60  
 cgccgcttcc gccagcgcac ggccctcgtc atccaccagc gcatccacac gggcgagaag  
 120  
 cctnaccgt gcccgactg cgagcggcgc ttctctcct cctctgcct ggtcagtcac  
 180  
 cggcgtgtgc ac  
 192

<210> 432  
 <211> 64  
 <212> PRT  
 <213> Homo sapiens

<400> 432  
 Leu Ala Ile His Gln Arg Thr His Thr Gly Glu Arg Pro Tyr Thr Gly  
 1 5 10 15  
 Leu Gly Cys Asn Arg Arg Phe Arg Gln Arg Thr Ala Leu Val Ile His  
 20 25 30  
 Gln Arg Ile His Thr Gly Glu Lys Pro Xaa Pro Cys Pro Asp Cys Glu  
 35 40 45  
 Arg Arg Phe Ser Ser Ser Ser Arg Leu Val Ser His Arg Arg Val His  
 50 55 60

<210> 433  
 <211> 635  
 <212> DNA  
 <213> Homo sapiens

<400> 433  
 nngccggcgg ctgcgttggg atacgacgtc gctgcgattg ggcgtgagta tctttggtac  
 60  
 ctcatggagg agcgtggcgc gtatgcggag gccgccgcgc tcatgccgct gctgctccgg  
 120  
 accgaccgag gcgcgtggga cacgtttgtg tgctgctacc tcgagcggca ccaaagggat  
 180  
 gcgatactcc cgcacattcc gacgcaggac cccagctga gtgagatggg gtacgatctc  
 240  
 gtgctgggtgc atctgctgca gcacgatccc acgcagctgt tggcgacgct ccgcgcatgg  
 300  
 ccgagtcaca tctactcgaa gcaggcgggtg gctgcggcga tcggcgatca cgcacgaacc  
 360  
 agccgcacgc tgctcgagtg cctcgcacag ctgtacatgg ccgcacatca gcccggaag  
 420  
 gctctgacat actacatgcg cctgcgtgat ccatgcgtgt ttgatctcat tcgcgagtac  
 480  
 gatctgctga tcgatgtgca gcaccacatc ggcacgctcg tcgagctcga tcaggaatgc  
 540

gccggctcca ctgagccgcg ctccagcgcg cttatgccgc tgctcgtgcc atataccac  
 600  
 tcgattccca tccagcgcgc catggcgag ctcga  
 635

<210> 434  
 <211> 211  
 <212> PRT  
 <213> Homo sapiens

<400> 434  
 Xaa Pro Ala Ala Ala Leu Gly Tyr Asp Val Ala Ala Ile Gly Arg Glu  
 1 5 10 15  
 Tyr Leu Trp Tyr Leu Met Glu Glu Arg Gly Ala Tyr Ala Glu Ala Ala  
 20 25 30  
 Ala Leu Met Pro Leu Leu Leu Arg Thr Asp Arg Gly Ala Trp Asp Thr  
 35 40 45  
 Phe Val Cys Cys Tyr Leu Glu Arg His Gln Arg Asp Ala Ile Leu Pro  
 50 55 60  
 His Ile Pro Thr Gln Asp Pro Gln Leu Ser Glu Met Val Tyr Asp Leu  
 65 70 75 80  
 Val Leu Val His Leu Leu Gln His Asp Pro Thr Gln Leu Leu Ala Thr  
 85 90 95  
 Leu Arg Ala Trp Pro Ser His Ile Tyr Ser Lys Gln Ala Val Ala Ala  
 100 105 110  
 Ala Ile Gly Asp His Ala Arg Thr Ser Arg Thr Leu Leu Glu Cys Leu  
 115 120 125  
 Ala Gln Leu Tyr Met Ala Ala His Gln Pro Gly Lys Ala Leu Thr Tyr  
 130 135 140  
 Tyr Met Arg Leu Arg Asp Pro Cys Val Phe Asp Leu Ile Arg Glu Tyr  
 145 150 155 160  
 Asp Leu Leu Ile Asp Val Gln His His Ile Gly Thr Leu Val Glu Leu  
 165 170 175  
 Asp Gln Glu Cys Ala Gly Ser Thr Glu Pro Arg Ser Ser Ala Leu Met  
 180 185 190  
 Pro Leu Leu Val Pro Tyr Thr His Ser Ile Pro Ile Gln Arg Ala Met  
 195 200 205  
 Ala Gln Leu  
 210

<210> 435  
 <211> 493  
 <212> DNA  
 <213> Homo sapiens

<400> 435  
 nncgtacgtt cgcgtatttt ccgcgcccgg gaagctatcg ataataaagt tcaaccgctg  
 60  
 atccagcgtt agcaatggcg ggcacaggaa gggtagcttag gcatgcagaa agaaaagctt  
 120  
 tccgctctga tggatggtga atcggttcgac agcgagctgt tgagttctct gtcgcaagat  
 180  
 cgaacgcttc aacaaagctg gcagggctat cacctgatac gtgacacact gcgaggtgat  
 240

gtcgggcaag tgatgcatct cgacatcgcc gatcgcgtag ccgctgcact tgagaaagaa  
 300  
 cccgcccggc tgggtgccttc cgccggttcag gaatctcagc cgcagcctca cacctggcag  
 360  
 aaaatgccgt tctgggacaa agtgcgtccc tgggcgagcc agattacgca aatcggtatg  
 420  
 gcggcctgcg tgtcgctggc ggtgatcgtc ggcgtgcagc agtacaacca gccttctgcg  
 480  
 ccatcgaacg cgt  
 493

<210> 436  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 436  
 Met Gln Lys Glu Lys Leu Ser Ala Leu Met Asp Gly Glu Ser Phe Asp  
   1                  5                  10                  15  
 Ser Glu Leu Leu Ser Ser Leu Ser Gln Asp Arg Thr Leu Gln Gln Ser  
                   20                  25                  30  
 Trp Gln Gly Tyr His Leu Ile Arg Asp Thr Leu Arg Gly Asp Val Gly  
           35                  40                  45  
 Gln Val Met His Leu Asp Ile Ala Asp Arg Val Ala Ala Ala Leu Glu  
       50                  55                  60  
 Lys Glu Pro Ala Arg Leu Val Pro Ser Ala Val Gln Glu Ser Gln Pro  
  65                  70                  75                  80  
 Gln Pro His Thr Trp Gln Lys Met Pro Phe Trp Asp Lys Val Arg Pro  
                   85                  90                  95  
 Trp Ala Ser Gln Ile Thr Gln Ile Gly Met Ala Ala Cys Val Ser Leu  
                   100                  105                  110  
 Ala Val Ile Val Gly Val Gln Gln Tyr Asn Gln Pro Ser Ala Pro Ser  
           115                  120                  125  
 Asn Ala  
       130

<210> 437  
 <211> 447  
 <212> DNA  
 <213> Homo sapiens

<400> 437  
 ntggtaaccg gtgtccctga tatggaccct gctgtggttag agcgtaaatt atttatttta  
 60  
 cgtaattatg taacacgcat ctgtttggag tctgttaatg gaattaagga caacttttac  
 120  
 attaatacat tctcatataa aacaatcggt tataaagggtc agttaaccac tgaacaagtg  
 180  
 ccacaatatt tcttagattt acaaaatcca agtatggtaa cggcattagc gcttggttcac  
 240  
 tcacgtttct caacaaatac atttcctcgt tggcgtttag cacaaccatt ccgttacatc  
 300  
 gctcataatg gcgaaatcaa tacggttcgc ggtaatatca attggatgaa agcacgtgaa  
 360

gcgttacttg aagctgaatt ttctactcgc tcagaattag atatgttaat gccaatctgt  
 420  
 acggatggta tgtctgactc ggcaagg  
 447

<210> 438  
 <211> 149  
 <212> PRT  
 <213> Homo sapiens

<400> 438  
 Xaa Val Thr Gly Val Pro Asp Met Asp Pro Ala Val Leu Glu Arg Lys  
 1 5 10 15  
 Leu Phe Ile Leu Arg Asn Tyr Val Thr Arg Ile Cys Leu Glu Ser Val  
 20 25 30  
 Asn Gly Ile Lys Asp Asn Phe Tyr Ile Asn Thr Phe Ser Tyr Lys Thr  
 35 40 45  
 Ile Val Tyr Lys Gly Gln Leu Thr Thr Glu Gln Val Pro Gln Tyr Phe  
 50 55 60  
 Leu Asp Leu Gln Asn Pro Ser Met Val Thr Ala Leu Ala Leu Val His  
 65 70 75 80  
 Ser Arg Phe Ser Thr Asn Thr Phe Pro Arg Trp Arg Leu Ala Gln Pro  
 85 90 95  
 Phe Arg Tyr Ile Ala His Asn Gly Glu Ile Asn Thr Val Arg Gly Asn  
 100 105 110  
 Ile Asn Trp Met Lys Ala Arg Glu Ala Leu Leu Glu Ala Glu Phe Phe  
 115 120 125  
 Thr Arg Ser Glu Leu Asp Met Leu Met Pro Ile Cys Thr Asp Gly Met  
 130 135 140  
 Ser Asp Ser Ala Arg  
 145

<210> 439  
 <211> 395  
 <212> DNA  
 <213> Homo sapiens

<400> 439  
 nacgcgtgaa gggagagtgg ggccgagccc caggaggctg tcctgcagca gctgcaccag  
 60  
 cttcccaggg gccggctgga cctggccacg caaagcctga cggtggagac ctgcagggcc  
 120  
 ctgggcaagc tgctgccgag ggagacgctg tgcacggagc tggtcctgag tgactgcatg  
 180  
 ctcagcgagg aaggggcccac actgctgctc cgaggcctgt gtgccaacac cgtgctgcgc  
 240  
 tttctggact taaagggcaa caaccttcgg gctgcagggg ccgaggctct gggaaaactc  
 300  
 ctccaacaga acaagtccat tcagagcctc acgctggagt ggaacagcct gggcacgtgg  
 360  
 gacgatgcct tcgccacctt ctgcgggggc ctggc  
 395

<210> 440

<211> 128  
 <212> PRT  
 <213> Homo sapiens

<400> 440  
 Arg Glu Ser Gly Ala Glu Pro Gln Glu Ala Val Leu Gln Gln Leu His  
   1                  5                  10                  15  
 Gln Leu Pro Arg Gly Arg Leu Asp Leu Ala Thr Gln Ser Leu Thr Val  
           20                  25                  30  
 Glu Thr Cys Arg Ala Leu Gly Lys Leu Leu Pro Arg Glu Thr Leu Cys  
           35                  40                  45  
 Thr Glu Leu Val Leu Ser Asp Cys Met Leu Ser Glu Glu Gly Ala Thr  
       50                  55                  60  
 Leu Leu Leu Arg Gly Leu Cys Ala Asn Thr Val Leu Arg Phe Leu Asp  
 65                  70                  75                  80  
 Leu Lys Gly Asn Asn Leu Arg Ala Ala Gly Ala Glu Ala Leu Gly Lys  
                   85                  90                  95  
 Leu Leu Gln Gln Asn Lys Ser Ile Gln Ser Leu Thr Leu Glu Trp Asn  
           100                  105                  110  
 Ser Leu Gly Thr Trp Asp Asp Ala Phe Ala Thr Phe Cys Gly Gly Leu  
       115                  120                  125

<210> 441  
 <211> 364  
 <212> DNA  
 <213> Homo sapiens

<400> 441  
 gcccagtact acgtgaacat gttcgatgcc gagcagggct tcttcgacag gcgcagcccg  
 60  
 ggcggcgagt tccaagccgg cttggatccg gaatcctggg gcggtctggt cactgagacc  
 120  
 gacggttgga acttcgcctt ccacgctcca caggacggcc gggggctggc cgcgctctac  
 180  
 ggcggtccga aaggcttgga gaacaagetc gatgcctttt tcgcgacgcc ggaaaacgcg  
 240  
 gacaagccgg cgtacggcgg aatccacgaa atggctcgagg ccagagcggt ccggatgggc  
 300  
 caattgggca tgtccaacga gccctcgcac catattccct acatctacaa ctatgccggc  
 360  
 gcgc  
 364

<210> 442  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

<400> 442  
 Ala Gln Tyr Tyr Val Asn Met Phe Asp Ala Glu Gln Gly Phe Phe Asp  
   1                  5                  10                  15  
 Arg Arg Ser Pro Gly Gly Glu Phe Gln Ala Gly Leu Asp Pro Glu Ser  
           20                  25                  30  
 Trp Gly Gly Leu Phe Thr Glu Thr Asp Gly Trp Asn Phe Ala Phe His



```

      35      40      45
Ala Pro Gln Asp Gly Arg Gly Leu Ala Ala Leu Tyr Gly Gly Pro Lys
      50      55      60
Gly Leu Glu Asn Lys Leu Asp Ala Phe Phe Ala Thr Pro Glu Asn Ala
65      70      75      80
Asp Lys Pro Ala Tyr Gly Gly Ile His Glu Met Val Glu Ala Arg Ala
      85      90      95
Val Arg Met Gly Gln Leu Gly Met Ser Asn Glu Pro Ser His His Ile
      100      105      110
Pro Tyr Ile Tyr Asn Tyr Ala Gly Ala
      115      120

```

<210> 443  
 <211> 430  
 <212> DNA  
 <213> Homo sapiens

```

<400> 443
accggttacg gctcagtgc acaagagatg ttcgccaaca acctcgtgcg gatgccgctg
60
ctcatggtgc tggcaatccc cttcgccaag atcctctcga cgaccctgtc catcggtatcg
120
ggcgggtccgg cggcgtcttc cggccctggc atgggtcatcg gcggagccac tggcgcgga
180
ctgtggcgcc tcctcgaggg gctgccaggt atcccatcct caccgatgag ttctgtcatt
240
gtcggcatga tcgcctgctt cgggtgcggtt gcccatgccc cactcggcgt gctgctcatg
300
gttggcgaga tgaccggaaa cctgtcgctg ctcgctcctg gcatgatcgc cgtcgccgtc
360
gctggccgag ttgtcgggga cacttcgatc tacacctctc agctcaagga tcgcctggag
420
ggcgacgcgt
430

```

<210> 444  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

```

<400> 444
Thr Gly Tyr Gly Ser Val Gln Gln Glu Met Phe Ala Asn Asn Leu Val
1      5      10      15
Arg Met Pro Leu Leu Met Val Leu Ala Ile Pro Phe Ala Lys Ile Leu
20      25      30
Ser Thr Thr Leu Ser Ile Gly Ser Gly Gly Pro Ala Ala Ser Ser Gly
35      40      45
Pro Gly Met Val Ile Gly Gly Ala Thr Gly Ala Ala Leu Trp Arg Leu
50      55      60
Leu Glu Gly Leu Pro Gly Ile Pro Ser Ser Pro Met Ser Phe Val Ile
65      70      75      80
Val Gly Met Ile Ala Cys Phe Gly Ala Val Ala His Ala Pro Leu Gly
85      90      95
Val Leu Leu Met Val Gly Glu Met Thr Gly Asn Leu Ser Leu Leu Ala

```

			100					105					110				
Pro	Gly	Met	Ile	Ala	Val	Ala	Val	Ala	Gly	Arg	Val	Val	Gly	Asp	Thr		
		115						120					125				
Ser	Ile	Tyr	Thr	Ser	Gln	Leu	Lys	Asp	Arg	Leu	Glu	Gly	Asp	Ala			
		130				135						140					

<210> 445  
 <211> 360  
 <212> DNA  
 <213> Homo sapiens

<400> 445  
 ccattggggct gcctagcctc tggggaggcc cctcagctgg tgacaccagc agggcagatt  
 60  
 tcttgcttta ttgctcacc tgtccagggt tccctctggt tgtgaggag ctgctgccac  
 120  
 cttgggtcca ggaagcatga agctccgcag gtcagcctcc tgggtgggagg acttttcctt  
 180  
 agttttcttt gctcttctgc tctgagtcca gccctggctg gacctttgat cccttctctc  
 240  
 tttatcagga aattttctga ctttcttctt ttgccttttc aagatctgtg atgccatctc  
 300  
 caagtgggaa caagccatga aggagctgca ccccggaag tctgagggtg ggacacgcgt  
 360

<210> 446  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 446  
 Met Ala Cys Ser His Leu Glu Met Ala Ser Gln Ile Leu Lys Arg Gln  
 1 5 10 15  
 Lys Lys Lys Val Arg Lys Phe Pro Asp Lys Glu Arg Arg Asp Gln Arg  
 20 25 30  
 Ser Ser Gln Gly Trp Thr Gln Ser Arg Arg Ala Lys Lys Thr Lys Glu  
 35 40 45  
 Lys Ser Ser His Gln Glu Ala Asp Leu Arg Ser Phe Met Leu Pro Gly  
 50 55 60  
 Pro Lys Val Ala Ala Ala Pro Ser Gln Thr Glu Gly Thr Leu Asp Arg  
 65 70 75 80  
 Val Ser Asn Lys Ala Arg Asn Leu Pro Cys Trp Cys His Gln Leu Arg  
 85 90 95  
 Gly Leu Pro Arg Gly  
 100

<210> 447  
 <211> 487  
 <212> DNA  
 <213> Homo sapiens

<400> 447  
 acgcgtgaag ggggaaattg ctctgtgccac ctgaggatta atcattaccc tggaaccctt  
 60

cccaaggcca tcaaggaaca cgcacccctt accagacctt ccagctgctg ggggctctcc  
 120  
 gagtgaggct gaggtcatgg agaaggggaat ggggggcccc catggccagc tggacctgat  
 180  
 cactgcctcc ccactcagcc acagccctca gggccctgtg ccagtccaga agcccattca  
 240  
 gggacacctt tggccaatgt tctgtttcat ctgcgaggca accttccccca gtgccccaac  
 300  
 catagcgttt tcccccaaac accctcagga aggagggacc actacctgtg cagggggggg  
 360  
 caggagcctc ctgagagcct catatgggga ggaagtggta ccatctcacc cccattgcct  
 420  
 ttctctccta ctccacctg gccagcttcc ctcaagtgcc ctctgcctc agtgcccctt  
 480  
 cacgcgt  
 487

<210> 448  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 448  
 Met Glu Lys Gly Met Gly Gly Pro His Gly Gln Leu Asp Leu Ile Thr  
 1 5 10 15  
 Ala Ser Pro Leu Ser His Ser Pro Gln Gly Pro Val Pro Val Gln Lys  
 20 25 30  
 Pro Ile Gln Gly His Leu Trp Pro Met Phe Cys Phe Ile Cys Glu Ala  
 35 40 45  
 Thr Phe Pro Ser Ala Pro Thr Ile Ala Phe Ser Pro Lys His Pro Gln  
 50 55 60  
 Glu Gly Gly Thr Thr Thr Cys Ala Gly Gly Ala Arg Ser Leu Leu Arg  
 65 70 75 80  
 Ala Ser Tyr Gly Glu Glu Val Val Pro Ser His Pro His Cys Leu Ser  
 85 90 95  
 Leu Leu Leu Pro Pro Gly Gln Leu Pro Ser Val Pro Leu Leu Pro Gln  
 100 105 110  
 Cys Pro Phe Thr Arg  
 115

<210> 449  
 <211> 353  
 <212> DNA  
 <213> Homo sapiens

<400> 449  
 gagctcagcc agttggagtt tgagaagcgg cagctgcaca gggacttgga gcaggccaag  
 60  
 gagaaggggg agcgggcaga gaagctggag agggagctac agcgactcca ggaggagaac  
 120  
 gggaggctgg ccaggaaggt gacctccctg gagacagcca ccgagaaagt cgaggccctg  
 180  
 gagcatgaga gccagggcct gcagctggag aaccggactc tgaggaagtc tctggacacc  
 240

ttgcagaacg tgtccctgca gcttgagggc ctggagcgtg acaacaagca gctggacgca  
300

gagaacctgg agctgcgcag gctggtggag accatgcgga gacgacaacg cgt  
353

<210> 450

<211> 117

<212> PRT

<213> Homo sapiens

<400> 450

Glu	Leu	Ser	Gln	Leu	Glu	Phe	Glu	Lys	Arg	Gln	Leu	His	Arg	Asp	Leu
1				5					10					15	
Glu	Gln	Ala	Lys	Glu	Lys	Gly	Glu	Arg	Ala	Glu	Lys	Leu	Glu	Arg	Glu
		20						25					30		
Leu	Gln	Arg	Leu	Gln	Glu	Glu	Asn	Gly	Arg	Leu	Ala	Arg	Lys	Val	Thr
		35					40					45			
Ser	Leu	Glu	Thr	Ala	Thr	Glu	Lys	Val	Glu	Ala	Leu	Glu	His	Glu	Ser
	50					55					60				
Gln	Gly	Leu	Gln	Leu	Glu	Asn	Arg	Thr	Leu	Arg	Lys	Ser	Leu	Asp	Thr
65				70					75					80	
Leu	Gln	Asn	Val	Ser	Leu	Gln	Leu	Glu	Gly	Leu	Glu	Arg	Asp	Asn	Lys
		85							90				95		
Gln	Leu	Asp	Ala	Glu	Asn	Leu	Glu	Leu	Arg	Arg	Leu	Val	Glu	Thr	Met
		100						105					110		
Arg	Arg	Arg	Gln	Arg											
			115												

<210> 451

<211> 444

<212> DNA

<213> Homo sapiens

<400> 451

gtgatgcggc tgactaagcc tactttattc accaatatcc cagtaacatg tgaagagaaa  
60  
gacttacctg gagatctctt taaccagctg atgagagatg atccttcaac cgттаатггт  
120  
gcagaagttt таатгттггг агaaатгctg actttaccac agaattttgg gaatatattt  
180  
ttgggagaga ccttttccag ttatatcagc gttcataatg atagcaatca agttgtaaaa  
240  
gacatattag taaaagctga tcttcagaca agttctcagc gtttaaactt ttcagcctcc  
300  
aatgctgcag tggtgaact taaaccggat tgttgattg atgatgtcat acatcatgaa  
360  
gtcaaagaaa ttggaacaca catcttggtg tgtgctgtga gttatacaac tcaggctgga  
420  
gaaaaaatgt atttcagaaa attt  
444

<210> 452

<211> 148

<212> PRT

<213> Homo sapiens

<400> 452

```

Val Met Arg Leu Thr Lys Pro Thr Leu Phe Thr Asn Ile Pro Val Thr
 1              5              10              15
Cys Glu Glu Lys Asp Leu Pro Gly Asp Leu Phe Asn Gln Leu Met Arg
      20              25              30
Asp Asp Pro Ser Thr Val Asn Gly Ala Glu Val Leu Met Leu Gly Glu
      35              40              45
Met Leu Thr Leu Pro Gln Asn Phe Gly Asn Ile Phe Leu Gly Glu Thr
      50              55              60
Phe Ser Ser Tyr Ile Ser Val His Asn Asp Ser Asn Gln Val Val Lys
65              70              75              80
Asp Ile Leu Val Lys Ala Asp Leu Gln Thr Ser Ser Gln Arg Leu Asn
      85              90              95
Leu Ser Ala Ser Asn Ala Ala Val Ala Glu Leu Lys Pro Asp Cys Cys
      100             105             110
Ile Asp Asp Val Ile His His Glu Val Lys Glu Ile Gly Thr His Ile
      115             120             125
Leu Val Cys Ala Val Ser Tyr Thr Thr Gln Ala Gly Glu Lys Met Tyr
      130             135             140
Phe Arg Lys Phe
145

```

<210> 453

<211> 373

<212> DNA

<213> Homo sapiens

<400> 453

```

gctagctctg accccacctt tgccaagtgg cactaggggtg gccaatgggg actaggggtg
60
tataattgga aaatacagtc tcccctgttg tccaagaaag gcccagatg acctggggct
120
tgaaaggcac tcccgctggg tgcttcctgg gagcaggtgg ggggcagcgg ggcggcgggg
180
cctgtctgtg ctgagcatcc ccagctccag ggcaggtgct gggctctgag cccactggt
240
gcgttttggg atgggctggc ctgcgcggct gtcgtttcag agcacacaga agagaccctg
300
ccacaggagg agtgggagga gaagctgttg atgttcctgc gagacaccct ggccatcatt
360
tctgacaacg cgt
373

```

<210> 454

<211> 108

<212> PRT

<213> Homo sapiens

<400> 454

```

Met Met Ala Arg Val Ser Arg Arg Asn Ile Asn Ser Phe Ser Ser His
 1              5              10              15
Ser Ser Cys Gly Arg Val Ser Ser Val Cys Ser Glu Thr Thr Ala Ala

```

```

          20          25          30
Gln Ala Ser Pro Ser Gln Asn Ala Pro Val Gly Leu Arg Ala Gln His
          35          40          45
Leu Pro Trp Ser Trp Gly Cys Ser Ala Gln Thr Gly Pro Ala Ala Pro
          50          55          60
Leu Pro Pro Thr Cys Ser Gln Glu Ala Pro Ser Gly Ser Ala Phe Gln
65          70          75          80
Ala Pro Gly His Leu Gly Pro Phe Leu Asp Asn Arg Gly Asp Cys Ile
          85          90          95
Phe Gln Leu Tyr Asn Pro Ser Pro His Trp Pro Pro
          100          105

```

<210> 455  
 <211> 602  
 <212> DNA  
 <213> Homo sapiens

```

<400> 455
cctaggcaaa gcatgcccac cctacctccc cttaccctta cccttcattt tcccctaagc
60
acccatcacc accgatgtta ctgtatgtgt ttgcttacgc tgacagccca ccaccacac
120
tggaatgtcc gcacgacaaa ggcaggactc ttggctgcct tagccacagc tggatcccca
180
gagctttgta ggggtgttggg cacagagtgg agtgggtact taataagtat ctgtggaatg
240
aacatgtaca gagtgaagcc ctgtgcccag aacaggctca aaataagctc aattcctttc
300
cttgccactt actaagtcct ttttctctcg cccctctca ctgacctggt tttgatgcca
360
gacagcacag atgggctagg gaggcaggtg gggaagcaga gatctgcgtc tcttggaagc
420
ggagctggtg ggtggggctc ctctctggtg ctgcggaggc tcattgggga ggtggcagcg
480
acccctcag gagcctctgt cgctgcact cagatctgtg cctttccaca gcgcccggag
540
gaagacttgc tcaggagata aattcaaaga caacaggaag ctggacgtgg tggctcacgc
600
gt
602

```

<210> 456  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

```

<400> 456
Met Pro Thr Leu Pro Pro Leu Thr Leu Thr Leu His Phe Pro Leu Ser
1          5          10          15
Thr His His His Arg Cys Tyr Cys Met Cys Leu Leu Thr Leu Thr Ala
          20          25          30
His His Pro His Trp Asn Val Arg Thr Thr Lys Ala Gly Leu Leu Ala
          35          40          45
Ala Leu Ala Thr Ala Gly Ser Pro Glu Leu Cys Arg Val Leu Gly Thr

```

50 55 60  
 Glu Trp Ser Gly Tyr Leu Ile Ser Ile Cys Gly Met Asn Met Tyr Arg  
 65 70 75 80  
 Val Lys Pro Cys Ala Gln Asn Arg Leu Lys Ile Ser Ser Ile Pro Phe  
 85 90 95  
 Leu Ala Thr Tyr  
 100

<210> 457  
 <211> 324  
 <212> DNA  
 <213> Homo sapiens

<400> 457  
 acgcgtcatg tggatattcc tgggaggttc ccaggaacgt ttctggacgg gcccccgacc  
 60  
 agaggtcagg gaacttttct tattattctg cacgtgccca gggatagtca aaccaggtct  
 120  
 tcccccttctg ctggccgcaa cacgccagcc gccgccacga ccgcacgctg aattcatgac  
 180  
 ccgacacgcg acgtggcagc gagcacaccc accgctagga gaaagagcgc tcatcgaaga  
 240  
 tcgttttctg tccactggcc agcgccacta tgatcaggtg gggatatccgc ccggcggcgg  
 300  
 gagcaccggg acgccggggc gccg  
 324

<210> 458  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 458  
 Met Trp Ile Phe Leu Gly Gly Ser Gln Glu Arg Phe Trp Thr Gly Pro  
 1 5 10 15  
 Arg Pro Glu Val Arg Glu Leu Phe Leu Leu Phe Cys Thr Cys Pro Gly  
 20 25 30  
 Ile Val Lys Pro Gly Leu Pro Leu Leu Leu Ala Ala Thr Arg Gln Pro  
 35 40 45  
 Pro Pro Arg Pro His Ala Glu Phe Met Thr Arg His Ala Thr Trp Gln  
 50 55 60  
 Arg Ala His Pro Pro Leu Gly Glu Arg Ala Leu Ile Glu Asp Arg Phe  
 65 70 75 80  
 Leu Ser Thr Gly Gln Arg His Tyr Asp Gln Val Gly Tyr Pro Pro Gly  
 85 90 95  
 Gly Gly Ser Thr Gly Thr Pro Gly Arg  
 100 105

<210> 459  
 <211> 415  
 <212> DNA  
 <213> Homo sapiens

<400> 459

acgcgttcat tcggcatctg cttccatgga ttctctgcgg ggaggcgcgg ccgagagtgc  
60  
gggtgtcgaa caccgacctt cagtgatcgt ttcaaccacc ggccgagatg ggtcctgacg  
120  
ctgggcttca agccgcttgc gctcgcgctc ctgatctcgg gcagcgcgat tccgggtggtt  
180  
tatgctgccg gcagacgact gcgcacgccc ctcacgaggt atctgcacat gcttaaaggg  
240  
agaggcctca cccgacagct gggcatcgga ttacgaagc ccacgacgaa tcttctcgc  
300  
ctctcaaag ccgatcatcg gcatgccagg tttgtggttg aatgcttcga tcaacacact  
360  
aggatcgttg gggtcacca catacaccga gcggcaatcg agcggatagc acctc  
415

<210> 460  
<211> 105  
<212> PRT  
<213> Homo sapiens

<400> 460  
Met Pro Met Ile Gly Phe Glu Glu Ala Arg Lys Ile Arg Arg Gly Leu  
1 5 10 15  
Arg Lys Ser Asp Ala Gln Leu Ser Gly Glu Ala Ser Pro Phe Lys His  
20 25 30  
Val Gln Ile Pro Arg Glu Gly Arg Ala Gln Ser Ser Ala Gly Ser Ile  
35 40 45  
Asn His Arg Asn Arg Ala Ala Arg Asp Gln Glu Arg Glu Arg Lys Arg  
50 55 60  
Leu Glu Ala Gln Arg Gln Asp Pro Ser Arg Pro Val Val Glu Thr Ile  
65 70 75 80  
Thr Glu Val Ser Cys Ser Thr Pro Ala Leu Ser Ala Ala Pro Pro Arg  
85 90 95  
Arg Lys Ser Met Glu Ala Asp Ala Glu  
100 105

<210> 461  
<211> 357  
<212> DNA  
<213> Homo sapiens

<400> 461  
acgcgttcga ggtcggctaa atttatcatg cgcacgacaa agagagtagt ggctcacaac  
60  
cgggtcacat gcatgatgac aaaaactggc agaataagat tgatgtcatc ccgtctacca  
120  
gtctctagaa ccagctcaga gagtcccggg gtcggtaccg tcgagactca gtacacaact  
180  
gtcgcgatac cggacgaccc tcttcatctg gttgcagatg ggcgtctcaa tcacgtcact  
240  
gtcgcttacg aaacctacgg gaagctcaat acgtccagcg acaatgcggg ctatacctgt  
300  
catgcgctta ctggtgatgc ccatgcagcc ggatttcacc ccggtgtagt ccgtccg  
357



<210> 462  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 462  
 Thr Arg Ser Arg Ser Ala Lys Phe Ile Met Arg Thr Thr Lys Arg Val  
 1 5 10 15  
 Val Ala His Asn Arg Val Thr Cys Met Met Thr Lys Thr Gly Arg Ile  
 20 25 30  
 Glu Leu Met Ser Ser Arg Leu Pro Ala Pro Arg Thr Ser Ser Glu Ser  
 35 40 45  
 Pro Gly Val Gly Thr Val Glu Thr Gln Tyr Thr Thr Val Ala Ile Pro  
 50 55 60  
 Asp Asp Pro Leu His Leu Val Ala Asp Gly Arg Leu Asn His Val Thr  
 65 70 75 80  
 Val Ala Tyr Glu Thr Tyr Gly Lys Leu Asn Thr Ser Ser Asp Asn Ala  
 85 90 95  
 Val Tyr Thr Cys His Ala Leu Thr Gly Asp Ala His Ala Ala Gly Phe  
 100 105 110  
 His Pro Gly Val Val Arg Pro  
 115

<210> 463  
 <211> 434  
 <212> DNA  
 <213> Homo sapiens

<400> 463  
 gtgcacgggg tatgcgaggg atgcggcatt gccaccaatg ccgctgacct gcgcagatac  
 60  
 gaggcagctg gtgacgatga agtggtgcga tgcgaggaat gcgatcgat cctggtgcgt  
 120  
 accggagagt ccatctgagc ccttcttggtg gcggtgatgc cgggatatcc gtagaattag  
 180  
 cggtcggacg agccatccgg gtgatcgcg cagcgggtgag ttgtcgagga aagtcggggc  
 240  
 tccatagagc aggggtggtgg gtaacgcca cccgggggtga cccgcgggaa agtgccacag  
 300  
 agaacagact gccggttttcg agccgggtgag ggtgaaacgg tggagtaagt gcccaccgcg  
 360  
 tcatcggtga cggtgacggc atggcaaacc ccacctggag caaggccaag aagaccgtga  
 420  
 ggtcgcgac gcgt  
 434

<210> 464  
 <211> 127  
 <212> PRT  
 <213> Homo sapiens

<400> 464  
 Met Pro Ser Pro Ser Pro Met Thr Arg Trp Ala Leu Thr Pro Pro Phe

1				5					10					15			
His	Pro	His	Arg	Leu	Glu	Thr	Gly	Ser	Leu	Phe	Ser	Val	Ala	Leu	Ser		
			20					25					30				
Arg	Gly	Ser	Pro	Arg	Val	Gly	Val	Thr	His	His	Pro	Ala	Leu	Trp	Ser		
		35					40					45					
Pro	Asp	Phe	Pro	Arg	Gln	Leu	Thr	Ala	Ala	Ala	Ile	Thr	Arg	Met	Ala		
	50				55						60						
Arg	Pro	Thr	Ala	Asn	Ser	Thr	Asp	Ile	Pro	Ala	Ser	Pro	Pro	Gln	Glu		
65				70						75				80			
Gly	Leu	Arg	Trp	Thr	Leu	Arg	Tyr	Ala	Pro	Gly	Tyr	Asp	Arg	Ile	Pro		
			85					90					95				
Arg	Ile	Ala	Pro	Leu	His	Arg	His	Gln	Leu	Pro	Arg	Ile	Cys	Ala	Gly		
			100					105					110				
Gln	Arg	His	Trp	Trp	Gln	Cys	Arg	Ile	Pro	Arg	Ile	Pro	Arg	Ala			
		115					120					125					

<210> 465  
 <211> 438  
 <212> DNA  
 <213> Homo sapiens

<400> 465  
 gatcatttag aatttatgga agaagctgat gtgaaagcta tgggtcaaatac tggcactgtg  
 60  
 gctgtattgc taccaggagc attttacacc ttgaaagaaa ctcaacttcc accgatgaat  
 120  
 ttgttacgtc agtacggagt agacattgct atttcgacgg atgctaatacc agggacgtcg  
 180  
 ccagcgttat cattacgggt aatgatgaat atggcatgta ccttgtttgg tatgacacct  
 240  
 gaaaccgccc ttgcaggggt aacaattcat gcggcaaaag cgttggggat tagcgattct  
 300  
 catggcactt tagaagttgg caaggtagct gattttgtct gctgggatgt ggaaagcccc  
 360  
 ggtgaacttt gttattgggt aggagagcag ttagtaaagc aacgtattca gcacggagta  
 420  
 tcccatgaat aatctaga  
 438

<210> 466  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

1				5					10					15			
Asp	His	Leu	Glu	Phe	Met	Glu	Glu	Ala	Asp	Val	Lys	Ala	Met	Val	Lys		
Ser	Gly	Thr	Val	Ala	Val	Leu	Leu	Pro	Gly	Ala	Phe	Tyr	Thr	Leu	Lys		
			20					25					30				
Glu	Thr	Gln	Leu	Pro	Pro	Met	Asn	Leu	Leu	Arg	Gln	Tyr	Gly	Val	Asp		
		35					40					45					
Ile	Ala	Ile	Ser	Thr	Asp	Ala	Asn	Pro	Gly	Thr	Ser	Pro	Ala	Leu	Ser		
	50				55						60						
Leu	Arg	Leu	Met	Met	Asn	Met	Ala	Cys	Thr	Leu	Phe	Gly	Met	Thr	Pro		

```

<400> 468
Gly Thr Ser Glu Leu Leu Ala Val Lys Met Ala Leu Glu Glu Trp Met
 1          5          10          15
Pro Trp Leu Glu Glu Ala Glu Tyr Leu Leu Ile Val Trp Thr Asp His
      20          25          30
Lys Asn Leu Glu Tyr Leu His Thr Thr Lys Cys Leu Asn Ser Arg Gln
      35          40          45
Ala Arg Arg Ala Gln Leu Phe Thr Trp Phe His Phe Ser Leu Ser Tyr
      50          55          60
Arg Pro Gly Ser Lys Asn Ile Arg Leu Asp Ala Leu Ser Cys His Phe
65          70          75          80
Met Gly Met Gly Pro Phe Leu Gln Ala Cys Leu Ser Pro Gly Leu Pro
      85          90          95
Ser Asn Pro Gly Leu Arg Ala Thr Thr Leu Leu Val Pro Ser Met Val
      100          105          110
Leu Tyr Val Ala Ala Ile

```

115

<210> 469  
 <211> 381  
 <212> DNA  
 <213> Homo sapiens

<400> 469  
 cttgtgcaca cggtattttt ccaatacaaa tagtttaaaa agtaaactcc aaatacctat  
 60  
 aagccccctc aaagcacctt ccaaatatga accttggttaa tgcccaaggt ccagaggggt  
 120  
 cccccagaaa ggcccaggag cctggggcat gggaaagctg tcgggggtccc catgctgact  
 180  
 ccctggactc caagcgatat tccataaagc cagggcctcc tggctgcggg agggaggcct  
 240  
 tgacccaaaa tccattcggc cctggatact ggagaggcag aggcctctgc tgatgagaag  
 300  
 ccctgagttc ctggctagct gtggttaacc acaaaaaatg cgggggggtga tgattttcga  
 360  
 agtccatcgg caaagaaaga c  
 381

<210> 470  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 470  
 Met Asp Phe Glu Asn His His Pro Pro His Phe Leu Trp Leu Thr Thr  
 1 5 10 15  
 Ala Ser Gln Glu Leu Arg Ala Ser His Gln Gln Arg Pro Leu Pro Leu  
 20 25 30  
 Gln Tyr Pro Gly Pro Asn Gly Phe Trp Val Lys Ala Ser Leu Pro Gln  
 35 40 45  
 Pro Gly Gly Pro Gly Phe Met Glu Tyr Arg Leu Glu Ser Arg Glu Ser  
 50 55 60  
 Ala Trp Gly Pro Arg Gln Leu Ser His Ala Pro Gly Ser Trp Ala Phe  
 65 70 75 80  
 Leu Gly Asp Pro Ser Gly Pro Trp Ala Leu Thr Arg Phe Ile Phe Gly  
 85 90 95  
 Arg Cys Phe Glu Gly Ala Tyr Arg Tyr Leu Glu Phe Thr Phe  
 100 105 110

<210> 471  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<400> 471  
 accggtgact acctgcagca ctggattgac atgggtaaaa agggcggcga ccgcatgcc  
 60  
 gaggtcttcc tggttaactg gttccgcgcg ggcgacgatg gccgcttcct gtggccgngg  
 120

cttggcgaaa acttccccggt cctanagtgg atcatcgacc gcattgaagg caacgtagag  
 180  
 gccgaggaca cggtaggtcgg acgcaccgcc cgcgccgagg acatcgactt gcaaggcctt  
 240  
 gacttcgatg tcgacgacgt tcgcgccgca ctcgccgttg acccgaagga atgggaaggc  
 300  
 gatatgcaag acaacgccga gtacctgaac ttcttgggct cccgcgtgcc cgaggaagtg  
 360  
 tggaaccagt tccgcgcc  
 378

<210> 472  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens

<400> 472  
 Thr Gly Asp Tyr Leu Gln His Trp Ile Asp Met Gly Lys Lys Gly Gly  
 1 5 10 15  
 Asp Arg Met Pro Glu Val Phe Leu Val Asn Trp Phe Arg Arg Gly Asp  
 20 25 30  
 Asp Gly Arg Phe Leu Trp Pro Xaa Leu Gly Glu Asn Phe Pro Val Leu  
 35 40 45  
 Xaa Trp Ile Ile Asp Arg Ile Glu Gly Asn Val Glu Ala Glu Asp Thr  
 50 55 60  
 Val Val Gly Arg Thr Ala Arg Ala Glu Asp Ile Asp Leu Gln Gly Leu  
 65 70 75 80  
 Asp Phe Asp Val Asp Asp Val Arg Ala Ala Leu Ala Val Asp Pro Lys  
 85 90 95  
 Glu Trp Glu Gly Asp Met Gln Asp Asn Ala Glu Tyr Leu Asn Phe Leu  
 100 105 110  
 Gly Ser Arg Val Pro Glu Glu Val Trp Asn Gln Phe Arg Ala  
 115 120 125

<210> 473  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

<400> 473  
 accggttggt gggggaaggg acccatccca tgccacctgt cctagaaaat gtttcccctt  
 60  
 gttgagcagc tgctggatct agggctgctg ggtctaagtc caaaaaggga aaaaggaaaa  
 120  
 aggcaccaag taaaagaagg gggaagctgc caaaaccccc cctgccaaaa ctctcccacc  
 180  
 ctgcttccat ttccctctcc agggaaacagg tgtacctccc ctctccctg tctctctcag  
 240  
 atgccccagg ggctctctac ttcatctctg ccgaccctgc caggagtggc ctcaggggta  
 300  
 gaggtcccta gttggagaat ttgcttgcag gaaggtgaa  
 339

<210> 474

<211> 97  
 <212> PRT  
 <213> Homo sapiens

<400> 474  
 Met Phe Pro Leu Val Glu Gln Leu Leu Asp Leu Gly Leu Leu Gly Leu  
 1 5 10 15  
 Ser Pro Lys Arg Glu Lys Gly Lys Arg His Gln Val Lys Glu Gly Gly  
 20 25 30  
 Ser Cys Gln Asn Pro Pro Cys Gln Asn Ser Pro Thr Leu Leu Pro Phe  
 35 40 45  
 Pro Ser Pro Gly Asn Arg Cys Thr Ser Pro Pro Pro Cys Pro Pro Gln  
 50 55 60  
 Met Pro Gln Gly Leu Ser Thr Ser Phe Leu Pro Thr Leu Pro Gly Val  
 65 70 75 80  
 Ala Ser Gly Val Glu Ala Pro Ser Trp Arg Ile Cys Leu Gln Glu Gly  
 85 90 95  
 Glu

<210> 475  
 <211> 345  
 <212> DNA  
 <213> Homo sapiens

<400> 475  
 acgcgtgaag ggtccctcc aaactctgag cctccttcca agccttgctg ggagctcccc  
 60  
 agcgctgcc ggagaggcct ctctccagg cgggcttccc gcgccgatgt gaaggagagg  
 120  
 ctgccccaga ggggtctgga tcgtaatcca gaaagggaca gtccacacgc cataatccccg  
 180  
 aatgctggga ctcttcagta aaggaagaga tggctttttc gttcatctgc ctttctgaaa  
 240  
 ggtaaaatat ctccagatcc gggctctctg ggcgactgcg tatgtggggg tccctgaagc  
 300  
 ctttgatgga tcttggttaga agtgggttgt tcattctggg gtttt  
 345

<210> 476  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 476  
 Met Asn Asn Pro Leu Leu Thr Arg Ser Ile Lys Gly Phe Arg Asp Pro  
 1 5 10 15  
 His Ile Arg Ser Arg Pro Glu Ser Pro Asp Leu Glu Ile Phe Tyr Leu  
 20 25 30  
 Ser Glu Arg Gln Met Asn Glu Lys Ala Ile Ser Ser Phe Thr Glu Glu  
 35 40 45  
 Ser Gln His Ser Gly Leu Trp Leu Trp Asp Cys Pro Phe Leu Asp Tyr  
 50 55 60  
 Asp Pro Asp Pro Ser Gly Ala Ala Ser Pro Ser His Arg Arg Gly Lys

65		70		75		80									
Pro	Ala	Trp	Arg	Arg	Gly	Leu	Ser	Gly	Arg	Arg	Trp	Gly	Ala	Pro	Ser
														95	
				85					90						
Lys	Ala	Trp	Lys	Glu	Ala	Gln	Ser	Leu	Glu	Gly	Thr	Leu	His	Ala	
								105					110		
				100											

<210> 477  
 <211> 422  
 <212> DNA  
 <213> Homo sapiens

<400> 477  
 acgcgtggcc gagccagcgt gctcaaggaa atgggtcaacg gcactcttat taacggctgg  
 60  
 gactctcccg aggtggaacg ggcactggac ctgtgcatgg cgtgcaaagg gtgcgcccga  
 120  
 gattgccccca ccggaatcga catggccagc taccgcagca cggttcttga cgaaaaatac  
 180  
 cgtcaccgtc tccgccctcg ctcccacctg acgatggggc tgctgcccac gtgggaacgt  
 240  
 ttgctcaatc ggaccccagg agcgcgctcg ctggctaacg cagtgccttc gatgccggtc  
 300  
 ttcgcacgtc ttgctagatg gacagccggg gtggatcagc gtcgtcccct cccccgattc  
 360  
 cagccctcgg ccagattggc cagtccgcag gccgccccgg ttaaggagat tgtggcggat  
 420  
 cc  
 422

<210> 478  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

<400> 478															
Thr	Arg	Gly	Arg	Ala	Ser	Val	Leu	Lys	Glu	Met	Val	Asn	Gly	Thr	Leu
1				5					10					15	
Ile	Asn	Gly	Trp	Asp	Ser	Pro	Glu	Val	Glu	Arg	Ala	Leu	Asp	Leu	Cys
			20					25					30		
Met	Ala	Cys	Lys	Gly	Cys	Ala	Arg	Asp	Cys	Pro	Thr	Gly	Ile	Asp	Met
		35				40						45			
Ala	Ser	Tyr	Arg	Ser	Thr	Val	Leu	Asp	Glu	Lys	Tyr	Arg	His	Arg	Leu
	50				55					60					
Arg	Pro	Arg	Ser	His	Leu	Thr	Met	Gly	Leu	Leu	Pro	Met	Trp	Glu	Arg
65					70				75					80	
Leu	Leu	Asn	Arg	Thr	Pro	Gly	Ala	Pro	Ser	Leu	Ala	Asn	Ala	Val	Leu
			85					90					95		
Ser	Met	Pro	Val	Phe	Ala	Arg	Leu	Ala	Arg	Trp	Thr	Ala	Gly	Val	Asp
			100				105					110			
Gln	Arg	Arg	Pro	Leu	Pro	Arg	Phe	Gln	Pro	Ser	Ala	Arg	Leu	Ala	Ser
		115				120					125				
Pro	Gln	Ala	Ala	Pro	Val	Lys	Glu	Ile	Val	Ala	Asp				
		130				135					140				

<210> 479  
 <211> 348  
 <212> DNA  
 <213> Homo sapiens

<400> 479  
 cgcggtggcca ttggccgggc gctggtgcgg caccgcgcac tggatgattgc cgatgagccg  
 60  
 atctcggcgt tggacatgac catccagaag cagattcttg agctgttcga gcgcctgcag  
 120  
 gcgcagtacg gctttgcctg cctgttcac cccacgacc tggcagcggg ggaacgcac  
 180  
 gccacccggg tggcggatgat gagcgagggc aggggtgggtg aaatgggtgc ccgcgacgag  
 240  
 atcttcgacc gcccgagca cccctacacc cgcaagctgc tggccgccgc cagccccttg  
 300  
 gagaaacttg aaaacgggtg ctaccgcac cgccagggcc ccgtaccg  
 348

<210> 480  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

<400> 480  
 Arg Val Ala Ile Gly Arg Ala Leu Val Arg His Pro Arg Leu Val Ile  
 1 5 10 15  
 Ala Asp Glu Pro Ile Ser Ala Leu Asp Met Thr Ile Gln Lys Gln Ile  
 20 25 30  
 Leu Glu Leu Phe Glu Arg Leu Gln Ala Gln Tyr Gly Phe Ala Cys Leu  
 35 40 45  
 Phe Ile Ser His Asp Leu Ala Val Glu Arg Ile Ala His Arg Val  
 50 55 60  
 Ala Val Met Ser Glu Gly Arg Val Val Glu Met Gly Ala Arg Asp Glu  
 65 70 75 80  
 Ile Phe Asp Arg Pro Gln His Pro Tyr Thr Arg Lys Leu Leu Ala Ala  
 85 90 95  
 Ala Ser Pro Leu Glu Lys Leu Glu Asn Gly Gly Tyr Arg Ile Arg Gln  
 100 105 110  
 Gly Pro Val Pro  
 115

<210> 481  
 <211> 441  
 <212> DNA  
 <213> Homo sapiens

<400> 481  
 aagcttctga ctgtggcatt ctccctgctt aatatgtcct caatatcccc tacttactgg  
 60  
 gcaaaatcct gcttatgctt tgggactagc tcaaagacca ctcccttgga tgggtgccttc  
 120  
 cctgccctgc cggcttgccg tggcttcctc agtggttagga ttaccatcac attgcatcat  
 180



gagagcagaa gaccatctcc atgtgactgc tgcccctgct cccagcaggg cccacaanca  
 240  
 cccagtccag gacctggctc acgctgggtg gcggatgccc aggaatgggg ctctggatct  
 300  
 gcctcttctc ctgcaggacc aggaaccgc tgccctgtcc ctgccccagg aaaccctcag  
 360  
 taaatcccca gtcatttgag tttccctca gcgccagaga ccaataacac atctccacca  
 420  
 acctgaaaaa ccttcacgcg t  
 441

<210> 482  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

<400> 482  
 Lys Leu Leu Thr Val Ala Phe Ser Leu Leu Asn Met Ser Ser Ile Ser  
 1 5 10 15  
 Pro Thr Tyr Trp Ala Lys Ser Cys Leu Cys Phe Gly Thr Ser Ser Lys  
 20 25 30  
 Thr Thr Pro Leu Asp Gly Ala Phe Pro Ala Leu Pro Ala Cys Ala Gly  
 35 40 45  
 Phe Leu Ser Val Arg Ile Thr Ile Thr Leu His His Glu Ser Arg Arg  
 50 55 60  
 Pro Ser Pro Cys Asp Cys Cys Pro Cys Ser Gln Gln Gly Pro Gln Xaa  
 65 70 75 80  
 Pro Ser Pro Gly Pro Gly Ser Arg Trp Val Ala Asp Ala Gln Glu Trp  
 85 90 95  
 Gly Ser Gly Ser Ala Ser Ser Pro Ala Gly Pro Gly Asn Arg Cys Pro  
 100 105 110  
 Val Pro Ala Pro Gly Asn Pro Gln  
 115 120

<210> 483  
 <211> 330  
 <212> DNA  
 <213> Homo sapiens

<400> 483  
 acgcgttcat tccctgatgg ccacgcacga gctaacggag ggatggggcg aagggaaggc  
 60  
 caaggttgcc tcgaagacca aggagtgtgc agggcaggac ctctgtttta aggaatatcc  
 120  
 tctcaccaga gacacgcggc ggccaggcag ggccggagcg gggcctgtgc ccaggctccg  
 180  
 agcgtctgcc cagcccagca tccctgtccc cagccaggaa tatgtcttcg tggcatagag  
 240  
 ggagctcttg gagccacacc tgcgtgtgca catgtgtcac cccactgctg ggaggggctc  
 300  
 tcccgggacc ctgcagcgtg ggctggggccc  
 330

<210> 484

<211> 96  
 <212> PRT  
 <213> Homo sapiens

<400> 484  
 Met Gly Arg Arg Glu Gly Gln Gly Cys Leu Glu Asp Gln Gly Val Cys  
 1 5 10 15  
 Arg Ala Gly Pro Arg Phe Lys Gly Ile Ser Ser His Gln Arg His Ala  
 20 25 30  
 Ala Ala Arg Gln Gly Arg Ser Gly Ala Cys Ala Gln Ala Pro Ser Val  
 35 40 45  
 Cys Pro Ala Gln His Pro Cys Pro Gln Pro Gly Ile Cys Leu Arg Gly  
 50 55 60  
 Ile Glu Gly Ala Leu Gly Ala Thr Pro Ala Cys Ala His Val Ser Pro  
 65 70 75 80  
 His Cys Trp Glu Gly Leu Ser Arg Asp Pro Ala Ala Trp Ala Gly Pro  
 85 90 95

<210> 485  
 <211> 377  
 <212> DNA  
 <213> Homo sapiens

<400> 485  
 acgcgtgctc gcgcggacga agtcggcgct gatcgcccag tcatgcgccc tgcccgtgcc  
 60  
 gccagttcgc gcgatcgccg cattcggccg gccggaatcg agaaggaatg cgtggacgta  
 120  
 cgggggatac caaaggaatc ttgtcgaggg cttcgcggcc ctcgacgtgg atcacctgta  
 180  
 cccgacggac gtggggaagc cgtcccgcaa gctcacggga ctccgcgaca tcgatgtgcg  
 240  
 atacgatttg caccgtcgtc ggctgcgtgc gcgacacatg ctccgcgacg gccacagcgg  
 300  
 tggtttccga cgtcagcagg aacgtggcga cgggtggcat ggcggtcgcc gttatgtcgg  
 360  
 cattcccatt cctcggg  
 377

<210> 486  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 486  
 Met Arg Pro Ala Arg Ala Ala Gln Phe Gly Asp Arg Arg Ile Arg Pro  
 1 5 10 15  
 Ala Gly Ile Glu Lys Glu Cys Val Asp Val Arg Gly Ile Pro Lys Glu  
 20 25 30  
 Ser Cys Arg Gly Leu Arg Gly Pro Arg Arg Gly Ser Pro Val Pro Asp  
 35 40 45  
 Gly Arg Gly Glu Ala Val Pro Gln Ala His Gly Thr Pro Arg His Arg  
 50 55 60  
 Cys Ala Ile Arg Phe Ala Pro Ser Ser Ala Ala Cys Ala Thr His Ala

65					70					75				80	
Pro	Arg	Ser	Pro	Gln	Arg	Trp	Phe	Pro	Thr	Ser	Ala	Gly	Thr	Trp	Arg
				85					90					95	
Arg	Val	Ala	Trp	Arg	Ser	Pro	Leu	Cys	Arg	His	Ser	His	Ser	Ser	
			100					105					110		

<210> 487  
 <211> 459  
 <212> DNA  
 <213> Homo sapiens

<400> 487  
 nnacgcgtaa gatcgattgt ggatcagcac cgatgctggt ccccccgacg ttgttgttgg  
 60  
 cgggtgttgt tgtaaggagt gtgtgtgatg cgtgttggtg ttcctactga ggtaagaat  
 120  
 agtgagtttc gtgtggctgt gacgccggcg ggtgttcattg cgttgggttg tctgtggtcat  
 180  
 gaggtgttgg ttcaggctgg tgctggtgtg ggttcgggta ttccggattc ggattttgtg  
 240  
 ggtgctggtg cgcgggttgt gggatgatgt gagtcggtgt ggggtgatgc tgatttggtg  
 300  
 ttgaaggatga aggagcctgt tgcggaggag tatgggagggt tgcattgagg tttggttctt  
 360  
 ttacgtatc ttcatttggc tgctgatgag gcgttgactc gtgagctttt ggggcgtggg  
 420  
 gtgacgtcga ttgcgtatga gacggtggag ttggccgat  
 459

<210> 488  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

Met	Arg	Val	Gly	Val	Pro	Thr	Glu	Val	Lys	Asn	Ser	Glu	Phe	Arg	Val
1				5					10					15	
Ala	Val	Thr	Pro	Ala	Gly	Val	His	Ala	Leu	Val	Gly	Arg	Gly	His	Glu
			20					25					30		
Val	Leu	Val	Gln	Ala	Gly	Ala	Gly	Val	Gly	Ser	Gly	Ile	Pro	Asp	Ser
		35				40						45			
Asp	Phe	Val	Gly	Ala	Gly	Ala	Arg	Val	Val	Gly	Asp	Val	Glu	Ser	Val
	50				55					60					
Trp	Gly	Asp	Ala	Asp	Leu	Val	Leu	Lys	Val	Lys	Glu	Pro	Val	Ala	Glu
65					70					75				80	
Glu	Tyr	Gly	Arg	Leu	His	Glu	Gly	Leu	Val	Leu	Phe	Thr	Tyr	Leu	His
			85					90					95		
Leu	Ala	Ala	Asp	Glu	Ala	Leu	Thr	Arg	Glu	Leu	Leu	Gly	Arg	Gly	Val
			100					105					110		
Thr	Ser	Ile	Ala	Tyr	Glu	Thr	Val	Glu	Leu	Ala	Asp				
			115				120								

<210> 489  
 <211> 542

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 489

nacgcgtttg gcgtactgag tgcggtggtg gatggcgacg acagtggcaa gccgctgctc  
 60  
 aaccagcacg gttgctacaa agtgcgcttt ccatttaccg gcgatcaaaa gccagcact  
 120  
 cggggttcgg catggctgcg caggggtgctg ttgtctgccg gttccagcca tggcatgcac  
 180  
 tttccgctgc tcaaaggcag tgaagtgttg gtgtcatttc tggggggcga ccccgaccgg  
 240  
 ccgattatcg ttggctgcgt accaaactcg gaaaccccgga gcatggctcg tgagcgtaac  
 300  
 gccacccaga gcggcttctc cacggccgga gggcacttcc tggcgatgga agaccacccc  
 360  
 ggggctgccc atctgaagct ggggtgcgct ggcggcaaca gcgtcttcac actgggcaat  
 420  
 ggcaaagtcg ccggcgcgca actgcgcacc aacgccccac atgcaattga catcgtcttc  
 480  
 gctcaaacac gaagtgcccg gcgtgtactc attgtcgatg ggcaccgggg acccggcggc  
 540  
 cg  
 542

&lt;210&gt; 490

&lt;211&gt; 180

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 490

Xaa	Ala	Phe	Gly	Val	Leu	Ser	Ala	Val	Val	Asp	Gly	Asp	Asp	Ser	Gly	1	5	10	15
Lys	Pro	Leu	Leu	Asn	Gln	His	Gly	Cys	Tyr	Lys	Val	Arg	Phe	Pro	Phe	20	25	30	
Thr	Arg	Asp	Gln	Lys	Pro	Ser	Thr	Arg	Gly	Ser	Ala	Trp	Leu	Arg	Arg	35	40	45	
Val	Ser	Leu	Ser	Ala	Gly	Ser	Ser	His	Gly	Met	His	Phe	Pro	Leu	Leu	50	55	60	
Lys	Gly	Ser	Glu	Val	Leu	Val	Ser	Phe	Leu	Gly	Gly	Asp	Pro	Asp	Arg	65	70	75	80
Pro	Ile	Ile	Val	Gly	Cys	Val	Pro	Asn	Ser	Glu	Thr	Pro	Ser	Met	Val	85	90	95	
Val	Glu	Arg	Asn	Ala	Thr	Gln	Ser	Gly	Phe	Ser	Thr	Ala	Gly	Gly	His	100	105	110	
Phe	Leu	Ala	Met	Glu	Asp	His	Pro	Gly	Ala	Ala	His	Leu	Lys	Leu	Gly	115	120	125	
Ala	Pro	Gly	Gly	Asn	Ser	Val	Phe	Thr	Leu	Gly	Asn	Gly	Lys	Val	Ala	130	135	140	
Gly	Ala	Gln	Leu	Arg	Thr	Asn	Ala	Pro	His	Ala	Ile	Asp	Ile	Val	Phe	145	150	155	160
Ala	Gln	Thr	Arg	Ser	Ala	Arg	Arg	Val	Leu	Ile	Val	Asp	Gly	His	Arg	165	170	175	
Gly	Pro	Gly	Gly																

180

<210> 491  
 <211> 825  
 <212> DNA  
 <213> Homo sapiens

<400> 491  
 nacgcgtcga ggcgacggtc ggcgccgtca tggcgactgt tctcgagggc acatgggaac  
 60  
 gcatcgggtgc cggattccgg actgccttaa ccacagcctt ggaacgcacc gatgaatggg  
 120  
 tggggcggccc tgacagcaag cccctcaacg aagtcgagac actgcgccgg tgcgccgatg  
 180  
 aactcatcgg cggggcccgtc ggcgcgggtg ccgcgatgca cggaggggtca atcgaattgg  
 240  
 tcgacgtgtc ggtcgggtgac gaagagcgca gagtcgacgt caccatgaag ggagcatgcc  
 300  
 gaggttgccc ggcagccatc agaccctaca tcagcgcctg gaacatcaac tgagtctgcg  
 360  
 nattgcgcga gccggtcacc gtgcgggaaa tctgacacct actccgacag ctccacctcg  
 420  
 acgagcacct ccacgacgag gccaagccac tcgtagacgc attcctcctc ggcatccaat  
 480  
 tcctcccggg ccgcccggagc gacttcgtcg gcagtaacct ggtcgatgat ccctagcctg  
 540  
 gcggccatca tgccacgcag cgcattgaca gtacgaagcc aacgttgcgt catcacaggg  
 600  
 ttcattggaga tacagccggt tcggtgcaac gtctccacat cagcacttaa ggactgagcg  
 660  
 tcttcccagc gcgccgcgac atcctcggcg tcattggtcga catggaattg cgcgtcagct  
 720  
 gagtcgtcgt cacgataggc gctgggcagg atcaatcgac gcacctcgtc gtcctcctgg  
 780  
 agtccagaaa actggctctc ccaaaaagcg aacgggtccc cctcc  
 825

<210> 492  
 <211> 58  
 <212> PRT  
 <213> Homo sapiens

<400> 492  
 Met Asn Gly Trp Ala Ala Leu Thr Ala Ser Pro Ser Thr Lys Ser Arg  
 1 5 10 15  
 His Cys Ala Gly Ala Pro Met Asn Ser Ser Ala Gly Pro Ser Ala Arg  
 20 25 30  
 Leu Pro Arg Cys Thr Glu Gly Gln Ser Asn Trp Ser Thr Cys Arg Ser  
 35 40 45  
 Val Thr Lys Ser Ala Glu Ser Thr Ser Pro  
 50 55

<210> 493  
 <211> 863

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 493

nacgcgttcc aacctcgtca aaacggctat cgcaggaaat gaccccaact ggggtcgcac  
 60  
 cctcgcggcg atcggatgtg ttcctgagaa tatagctccc ttcgatcccc accaggtgga  
 120  
 tgtgtccatc aatgacattc agatctgtaa ggccgggggt atcggggagg accgcaacct  
 180  
 cgtcgatatg aggccacgag aggttcacat cgatattgag ctgcatgcgg gtgatgccga  
 240  
 agctgcggta tggactaatg atctgaccca ccaatacgtc gaagagaata gcgcgtatac  
 300  
 atcatgaccc ttgctcttga catccccctc aacgactccc agttctcggc tcagcggaaa  
 360  
 tctgaggtcc tggtagaagc gctgccttgg atcaggcggt ttcagggccg cactgtcgtc  
 420  
 gtgaaatatg gcggcaacgc gatggttgat cccggtctgc agcaggcctt cgccgacgac  
 480  
 attgtgttta tggcctctgt ggggattcgc cctattgtcg tccacgggtg tggccctcag  
 540  
 atcaatgcca tgcttgctga atccgctacc ccggtggagt tccgtaatgg tttgcgggtg  
 600  
 acatctccgg aggtcatgga ggttgtccgg atggtgctcg tcgggcaggt gggccgtcag  
 660  
 ctcgtaacc gaatcaacgc ctatgcgccg ctagcagctg gcatgtcagg cgaggacttt  
 720  
 ggcctttttt cggcccggaa gtcgcgggta attgttgatg gcgagcaaata agacatgggt  
 780  
 ttagtgggag acatcgttga cgtcaacatc gatctcgta tctctatgct tgatcgcggt  
 840  
 cagattccgg tcattgcacc ggt  
 863

&lt;210&gt; 494

&lt;211&gt; 186

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 494

Met	Thr	Leu	Ala	Leu	Asp	Ile	Pro	Leu	Asn	Asp	Ser	Gln	Phe	Ser	Ala
1				5					10					15	
Gln	Arg	Lys	Ser	Glu	Val	Leu	Val	Glu	Ala	Leu	Pro	Trp	Ile	Arg	Arg
			20					25					30		
Phe	Gln	Gly	Arg	Thr	Val	Val	Val	Lys	Tyr	Gly	Gly	Asn	Ala	Met	Val
		35					40					45			
Asp	Pro	Gly	Leu	Gln	Gln	Ala	Phe	Ala	Asp	Asp	Ile	Val	Phe	Met	Ala
	50					55					60				
Ser	Val	Gly	Ile	Arg	Pro	Ile	Val	Val	His	Gly	Gly	Gly	Pro	Gln	Ile
65					70				75					80	
Asn	Ala	Met	Leu	Ala	Glu	Ser	Ala	Thr	Pro	Val	Glu	Phe	Arg	Asn	Gly
			85						90					95	
Leu	Arg	Val	Thr	Ser	Pro	Glu	Val	Met	Glu	Val	Val	Arg	Met	Val	Leu

```
<210> 495
<211> 514
<212> DNA
<213> Homo sapiens
```

```
<210> 496
<211> 171
<212> PRT
<213> Homo sapiens
```

673

				85					90					95					
Met	Ile	Tyr	Arg	Ile	Ala	His	Asn	Phe	Gly	Gly	Thr	Ser	Val	Phe	Ala				
				100				105					110						
Gly	Val	Gly	Glu	Arg	Thr	Arg	Glu	Gly	Asn	Asp	Leu	Ile	Asn	Glu	Met				
		115					120				125								
Asp	Glu	Ala	Gly	Val	Leu	Lys	Asp	Thr	Ala	Leu	Val	Phe	Gly	Gln	Met				
	130					135				140									
Asp	Glu	Pro	Pro	Gly	Thr	Arg	Tyr	Glu	Leu	Ser	Arg	Trp	Gln	Pro	Cys				
145					150				155						160				
Gly	Pro	Cys	Leu	Val	Asn	Cys	Cys	Gly	Thr	Leu									
				165					170										

<210> 497  
 <211> 662  
 <212> DNA  
 <213> Homo sapiens

<400> 497  
 acgcgtcctg ggatctcaac cccagcagtc tggcttggtt ctcattccca caatttcctg  
 60  
 gggtccacca agcagcgaaa actgccagga tgaatgagga aaaaacccag cccacaaaac  
 120  
 gagacacacg ctggcgggga gagacgcagc agagctcctt cctgtctgtg gactcggagc  
 180  
 aaagacgtgg ggccccatct tttgtgtttt cctcaagcgg ggaaagaatg gactgtttgc  
 240  
 atgcttcgtg ccacacgccc gcggtgatcc cagccagggc cccgagcgca gaggcggagc  
 300  
 tgtgctcagc acaggcctgg gacctcccc cgcaggcacc tgtggggggg gcagcccccg  
 360  
 ggaaggaggc aactgcctca cttaacatcc tccgctgcaa ggtggtggcg ccgagaggcg  
 420  
 tgtctgtgaa gacaggtacc aggatggcag gaccgcacg cctcttccca cacctgtcag  
 480  
 cttcggaagc atctctcgag gactctggtc ccaggatgtc tcccaggaca agccagtctg  
 540  
 cctcttcttc ctacttctgc ttagcctgg gaccagacct ggccaaggtc agccagcggg  
 600  
 gagggccgag gtctgagctc tcgtcctgcc gtggcccccg cgatggcttg gggtgcaagc  
 660  
 tt  
 662

<210> 498  
 <211> 191  
 <212> PRT  
 <213> Homo sapiens

Met	Asn	Glu	Glu	Lys	Thr	Gln	Pro	His	Lys	Arg	Asp	Thr	Arg	Trp	Arg				
1				5					10				15						
Gly	Glu	Thr	Gln	Gln	Ser	Ser	Phe	Leu	Ser	Val	Asp	Ser	Glu	Gln	Arg				
			20					25					30						
Arg	Gly	Ala	Pro	Ser	Phe	Val	Phe	Ser	Ser	Ser	Gly	Glu	Arg	Met	Asp				



```

<400> 500
Met Thr Val Thr Ala Leu Leu Cys Gln Ala Phe Pro Pro Ser Ile Asp
  1                      5                      10                      15
Glu Glu Gly Leu Leu Leu Pro His Phe Ala Asp Lys Glu Ile Glu Val
      20                      25                      30
Leu Arg Ser Glu Val Thr Ser Ser Asn Pro Pro Val Glu Asp Leu Asn

```

```

      35              40              45
Pro Glu Arg Phe Gln Leu Gln Cys Ser Arg Ser Glu Leu Arg Ser Phe
      50              55              60
His Leu Lys Lys Gly Leu Leu Thr Tyr Arg Leu Leu Arg Lys Pro Glu
      65              70              75              80
Gly Gln Ala Glu Gly Arg Ala Pro Ala Leu Gln Gly Gly Gly Leu Thr
      85              90              95
Gln Leu Asn Thr Ala His Pro Ser Arg
      100              105

```

<210> 501  
 <211> 800  
 <212> DNA  
 <213> Homo sapiens

<400> 501  
 agatctgata cgagaagtgg ctgctcaggg aaatgactac tccatggctt tcttaactca  
 60  
 ggtactcctt attcaatgag aggcctgagg tgagaccgcg catgcggcgc gtggatcgca  
 120  
 tgggtgtagt gcacactagc aaggggctta ggtctccagc tgaggtcaga tgcacacttg  
 180  
 gaccttgtag tggggagtaa cacacatctc tgtgttcagc gaaccatcca ggagctgttt  
 240  
 gaagtttatt ctcccatgga tgatgctggc tccccgggtca aagctgagga gtttgtggtg  
 300  
 ctttctcagg aaccttctgt cacggaaacc attgcacca aaattgcaag acctttcata  
 360  
 gaggccctca agagtattga gtatctggag gaggatgccc agaagtccgc acaggagggg  
 420  
 gtgctgggac cacacactga tgetctgtca tcagactctg agaacatgcc gtgtgatgaa  
 480  
 gaaccatccc aattagagga gctagctgac ttcattggagc agcttacacc aattgaaaaa  
 540  
 tatgctttaa attacctgga atcttgaggc agggcctgag agagcacgct gcgccgtact  
 600  
 tccagcagct gcggcagacc acggctccac gcctgctgca gttccctgag ctgaggctgg  
 660  
 tgcagttcga ctcaggtatg cggcagttgg gggcgtggcc cgtgcgggag ctgcactggc  
 720  
 cctggatgat gaggcgctct tgatgtgatt cgtttcccag ggaagttgga agcttttagct  
 780  
 atcttgcttc agaaactgaa  
 800

<210> 502  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 502  
 Met Asp Asp Ala Gly Phe Pro Val Lys Ala Glu Glu Phe Val Val Leu  
 1 5 10 15  
 Ser Gln Glu Pro Ser Val Thr Glu Thr Ile Ala Pro Lys Ile Ala Arg

```

                20                25                30
Pro Phe Ile Glu Ala Leu Lys Ser Ile Glu Tyr Leu Glu Glu Asp Ala
                35                40                45
Gln Lys Ser Ala Gln Glu Gly Val Leu Gly Pro His Thr Asp Ala Leu
                50                55                60
Ser Ser Asp Ser Glu Asn Met Pro Cys Asp Glu Glu Pro Ser Gln Leu
65                70                75                80
Glu Glu Leu Ala Asp Phe Met Glu Gln Leu Thr Pro Ile Glu Lys Tyr
                85                90                95
Ala Leu Asn Tyr Leu Glu Ser
                100

```

<210> 503  
 <211> 538  
 <212> DNA  
 <213> Homo sapiens

```

<400> 503
nnacgcgttg tcgtctctcc gatcattgat tttgttgtat tctgcaatga tgtaaaggaa
60
gatgatgaca cggagaagtt taaagaagcc attgtgaaat ttcataggct gtttgggatg
120
ccagaggaag agaaactcgt caactattac tcttgcagct attggaaggg gaagggtcccc
180
cgtcagggtt ggatgtacct cagcattaac cacctttgct tttattcttt tcttatggga
240
agggaagcga aactggtcac ccggtgggta gacatcactc agcttgagaa gaatgcccc
300
ctgcttctgc ctgatgtgat caaagtgagc acacgggtcca gtgagcattt cttctctgta
360
ttcctcaaca tcaacgagac cttcaagtta atggagcagc ttgccaaact agccatgagg
420
caactcttag acaatgaggg atttgaacaa gatcgatccc tgcccaaact caaaaggaaa
480
tctcctaaaa aagtgtctgc tctaaaacgt gatcttgatg cctgggccct tcacgcgt
538

```

<210> 504  
 <211> 179  
 <212> PRT  
 <213> Homo sapiens

```

<400> 504
Xaa Arg Val Val Val Ser Pro Ile Ile Asp Phe Val Val Phe Cys Asn
1                5                10                15
Asp Val Lys Glu Asp Asp Asp Thr Glu Lys Phe Lys Glu Ala Ile Val
                20                25                30
Lys Phe His Arg Leu Phe Gly Met Pro Glu Glu Glu Lys Leu Val Asn
                35                40                45
Tyr Tyr Ser Cys Ser Tyr Trp Lys Gly Lys Val Pro Arg Gln Gly Trp
50                55                60
Met Tyr Leu Ser Ile Asn His Leu Cys Phe Tyr Ser Phe Leu Met Gly
65                70                75                80
Arg Glu Ala Lys Leu Val Ile Arg Trp Val Asp Ile Thr Gln Leu Glu

```

```

      85              90              95
Lys Asn Ala Pro Leu Leu Leu Pro Asp Val Ile Lys Val Ser Thr Arg
      100              105              110
Ser Ser Glu His Phe Phe Ser Val Phe Leu Asn Ile Asn Glu Thr Phe
      115              120              125
Lys Leu Met Glu Gln Leu Ala Asn Ile Ala Met Arg Gln Leu Leu Asp
      130              135              140
Asn Glu Gly Phe Glu Gln Asp Arg Ser Leu Pro Lys Leu Lys Arg Lys
      145              150              155              160
Ser Pro Lys Lys Val Ser Ala Leu Lys Arg Asp Leu Asp Ala Trp Ala
      165              170              175
Leu His Ala

```

<210> 505  
 <211> 381  
 <212> DNA  
 <213> Homo sapiens

```

<400> 505
gtgcacgaca ccgaacggta cgaacgtatc tcccaggcac gtcgcgagga acagcaggcc
60
atgctcggct acgacngctc aagaacctgt cgcattgacct tgctcaccgg gcagctggac
120
gacccctcca cgactccttg cggacgctgc gacgtctgtg ctggcccgtg gtactcagtc
180
gaggtcgatc agtcagccgc tgtgagagcc gtccaatccc tcaaccgggt gggagttccg
240
gtggaaccac gcgcgccttg gccgcaggg atggacgccc tccagggtgc gctcaagggt
300
cgcattcagt cccaggagat cgctgcagag ggccgcgtca tcgccagact ctccgatctg
360
ggttggggag gggcgctgcg c
381

```

<210> 506  
 <211> 127  
 <212> PRT  
 <213> Homo sapiens

```

<400> 506
Val His Asp Thr Glu Arg Tyr Glu Arg Ile Ser Gln Ala Arg Arg Glu
1      5      10      15
Glu Gln Gln Ala Met Leu Gly Tyr Asp Xaa Ser Arg Thr Cys Arg Met
20     25     30
Thr Leu Leu Thr Gly Gln Leu Asp Asp Pro Ser Thr Thr Pro Cys Gly
35     40     45
Arg Cys Asp Val Cys Ala Gly Pro Trp Tyr Ser Val Glu Val Asp Gln
50     55     60
Ser Ala Ala Val Arg Ala Val Gln Ser Leu Asn Arg Val Gly Val Pro
65     70     75     80
Val Glu Pro Arg Ala Ala Trp Pro Ala Gly Met Asp Ala Leu Gln Val
85     90     95
Ala Leu Lys Gly Arg Ile Ser Ala Glu Glu Ile Ala Ala Glu Gly Arg

```

	100		105		110									
Val	Ile	Ala	Arg	Leu	Ser	Asp	Leu	Gly	Trp	Gly	Gly	Ala	Leu	Arg
	115		120		125									

<210> 507  
 <211> 499  
 <212> DNA  
 <213> Homo sapiens

<400> 507  
 gccggcggtgt tcaacctcat ggtgtggggcc ttcattaccg acgtcatcga tgcccaggag  
 60  
 gtcattgtccg gggagcgtga agacgggtgc atctatggcg tgaactcctt cgcccgcaaa  
 120  
 cttgcccagg ccattgccgg tggaatcggc ggagccatgc tgacgatgat cggctaccag  
 180  
 tcctcctccc aaggtggtgc cgttcagtcg gaggccgtcg tcaatcacct gtacacgctc  
 240  
 gccaccgcca tcccagacgat ctgctgcctc ggcgctgccc tgctcatgct gggctaccg  
 300  
 ctcacccgcg acaaggtggt cgccaacgcc gacgagttgg ctcgtcgcca cgcagtacag  
 360  
 gccgagcaaa actcctgacc cataacggag gcacatcatg gacacgctca tgcggatcac  
 420  
 cgaccacttg acaacctcgc cgggtatcca attgaaaatt gacaagcgat ggggtgcctc  
 480  
 cgtcacattt gtgacgcgt  
 499

<210> 508  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 508															
Ala	Gly	Val	Phe	Asn	Leu	Met	Val	Trp	Ala	Phe	Ile	Thr	Asp	Val	Ile
1				5					10					15	
Asp	Ala	Gln	Glu	Val	Met	Ser	Gly	Glu	Arg	Glu	Asp	Gly	Val	Ile	Tyr
		20						25					30		
Gly	Val	Asn	Ser	Phe	Ala	Arg	Lys	Leu	Ala	Gln	Ala	Ile	Ala	Gly	Gly
		35					40					45			
Ile	Gly	Gly	Ala	Met	Leu	Thr	Met	Ile	Gly	Tyr	Gln	Ser	Ser	Ser	Gln
	50					55					60				
Gly	Gly	Ala	Val	Gln	Ser	Glu	Ser	Val	Val	Asn	His	Leu	Tyr	Thr	Leu
65				70					75					80	
Ala	Thr	Ala	Ile	Pro	Thr	Ile	Cys	Cys	Leu	Gly	Ala	Ala	Leu	Leu	Met
			85					90					95		
Leu	Gly	Tyr	Pro	Leu	Thr	Arg	Asp	Lys	Val	Val	Ala	Asn	Ala	Asp	Glu
		100						105				110			
Leu	Ala	Arg	Arg	His	Ala	Val	Gln	Ala	Glu	Gln	Asn	Ser			
	115					120					125				

<210> 509  
 <211> 360

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 509

ttggccatgg atttggtctcg caagttcagt cccaaagatg tcacgctcta tctaattggac  
 60  
 ttcgggacca atggtgtggc accactaggc caattaccac aggtggccga caccttgctt  
 120  
 ttggatcata cggagaagat tgccaagttt gtacgcatca tggagcggga gctcaaccgg  
 180  
 cgtaagaagc tcttgtccga ctacggtggt ggtacactag agctctaccg tcaggctagc  
 240  
 ggtcagcaag agccggccat cgtcatcctg ctggacagtt atgagtccat gaaggaagag  
 300  
 gcctatgaag cggagctctt cacgctcttg gtgcggatct cccgggaagg tctcagcatc  
 360

&lt;210&gt; 510

&lt;211&gt; 120

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 510

Leu	Ala	Met	Asp	Leu	Ala	Arg	Lys	Phe	Ser	Pro	Lys	Asp	Val	Thr	Leu
1				5					10					15	
Tyr	Leu	Met	Asp	Phe	Gly	Thr	Asn	Gly	Val	Ala	Pro	Leu	Gly	Gln	Leu
			20					25					30		
Pro	Gln	Val	Ala	Asp	Thr	Leu	Leu	Leu	Asp	His	Thr	Glu	Lys	Ile	Ala
		35				40						45			
Lys	Phe	Val	Arg	Ile	Met	Glu	Arg	Glu	Leu	Asn	Arg	Arg	Lys	Lys	Leu
	50				55						60				
Leu	Ser	Asp	Tyr	Gly	Val	Gly	Thr	Leu	Glu	Leu	Tyr	Arg	Gln	Ala	Ser
65				70					75					80	
Gly	Gln	Gln	Glu	Pro	Ala	Ile	Val	Ile	Leu	Leu	Asp	Ser	Tyr	Glu	Ser
			85					90						95	
Met	Lys	Glu	Glu	Ala	Tyr	Glu	Ala	Glu	Leu	Phe	Thr	Leu	Leu	Val	Arg
			100					105						110	
Ile	Ser	Arg	Glu	Gly	Leu	Ser	Ile								
		115					120								

&lt;210&gt; 511

&lt;211&gt; 361

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 511

ntcgcgaacc gcggctatgc ggtgctccag cccaatttcc gcggatcggg cggttatggc  
 60  
 actgcgttcg gcgatgccgg catcggccag atcggggcgca agatgcagga cgatctcgac  
 120  
 gacgggatgg actggctggt caaggagggc atcgtcgaca agggccgggt gtgcatcgtc  
 180  
 ggggcctcct atggcggcta tgccgcgatg tggggcgaga tccgcaatcc cgaacgctat  
 240

cgctgcgcgg cgagcctggc ggggggttgcc gattaaggcc atgctcaaataa acccggcg  
 300  
 ctatctcgac aaggaggcgg gcaagcgctg gccgccccgn tcaaccggcg aaccgaatt  
 360  
 C  
 361

<210> 512  
 <211> 91  
 <212> PRT  
 <213> Homo sapiens

<400> 512  
 Xaa Ala Asn Arg Gly Tyr Ala Val Leu Gln Pro Asn Phe Arg Gly Ser  
 1 5 10 15  
 Gly Gly Tyr Gly Thr Ala Phe Gly Asp Ala Gly Ile Gly Gln Ile Gly  
 20 25 30  
 Arg Lys Met Gln Asp Asp Leu Asp Asp Gly Met Asp Trp Leu Val Lys  
 35 40 45  
 Glu Gly Ile Val Asp Lys Gly Arg Val Cys Ile Val Gly Ala Ser Tyr  
 50 55 60  
 Gly Gly Tyr Ala Ala Met Trp Gly Ala Ile Arg Asn Pro Glu Arg Tyr  
 65 70 75 80  
 Arg Cys Ala Ala Ser Leu Ala Gly Val Ala Asp  
 85 90

<210> 513  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

<400> 513  
 nnatgcagac tagaagatgg catgacgggt ttggctggcg gtttcgggct atgcggcatt  
 60  
 ccagaaaatc tgattcaaga gatcaaacga cgccagactt gtgatttgac catagtgtca  
 120  
 aataactgtg gtgtagatgg ttttggttta ggggttttgc tagaagataa gcaagtacgc  
 180  
 aaaatggtgt cttcttatgt gggtgaaaat gcactgtttg agaagcaatt attacaaggt  
 240  
 gagttggaag tcgagctcac tcctcaaggc actcttgccg aaaaactacg cgctggcggc  
 300  
 gcgggaattc ctgccttttt cacagcaacg ggtgtaggta cacctattgg tgagggtaaa  
 360  
 gacacgcgt  
 369

<210> 514  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

<400> 514  
 Xaa Cys Arg Leu Glu Asp Gly Met Thr Val Leu Ala Gly Gly Phe Gly

```

      1             5             10             15
Leu Cys Gly Ile Pro Glu Asn Leu Ile Gln Glu Ile Lys Arg Arg Gln
      20             25             30
Thr Cys Asp Leu Thr Ile Val Ser Asn Asn Cys Gly Val Asp Gly Phe
      35             40             45
Gly Leu Gly Val Leu Leu Glu Asp Lys Gln Val Arg Lys Met Val Ser
      50             55             60
Ser Tyr Val Gly Glu Asn Ala Leu Phe Glu Lys Gln Leu Leu Gln Gly
      65             70             75             80
Glu Leu Glu Val Glu Leu Thr Pro Gln Gly Thr Leu Ala Glu Lys Leu
      85             90             95
Arg Ala Gly Gly Ala Gly Ile Pro Ala Phe Phe Thr Ala Thr Gly Val
      100             105             110
Gly Thr Pro Ile Gly Glu Gly Lys Asp Thr Arg
      115             120

```

<210> 515  
 <211> 387  
 <212> DNA  
 <213> Homo sapiens

<400> 515  
 gcgtgggacg agaaggccgc cggcaactgc gcgatcgact acgggttcca ccagatcctc  
 60  
 tccgacgtgc aggactcgtc gctgaccgcg atggacgagc tgatcaccga gggcgtgaca  
 120  
 tccttcaagc tcttcgtggc ctacaagggc gtcttctctt cggacgacgg gcagatcctg  
 180  
 cgggcgttcc agaagggcgc cgacaacggc gcgatgatga tgatgcacgc cgagaacggc  
 240  
 gcgatcatcg acgtgctcgt gcagcaggcg ctcgaggccg ggaagaccac cccgtactac  
 300  
 cacggcatca gccggccgtg gcaggccgag gaggaggcca cccaccgcgc gatcatgac  
 360  
 gccgacctga ccggtgcgcc gttgtac  
 387

<210> 516  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

```

      1             5             10             15
Ala Trp Asp Glu Lys Ala Ala Gly Asn Cys Ala Ile Asp Tyr Gly Phe
      20             25             30
His Gln Ile Leu Ser Asp Val Gln Asp Ser Ser Leu Thr Ala Met Asp
      35             40             45
Glu Leu Ile Thr Glu Gly Val Thr Ser Phe Lys Leu Phe Val Ala Tyr
      50             55             60
Lys Gly Val Phe Leu Ser Asp Asp Gly Gln Ile Leu Arg Ala Phe Gln
      65             70             75             80
Lys Gly Ala Asp Asn Gly Ala Met Met Met Met His Ala Glu Asn Gly
      85             90             95
Ala Ile Ile Asp Val Leu Val Gln Gln Ala Leu Glu Ala Gly Lys Thr

```



				85					90					95			
Thr	Pro	Tyr	Tyr	His	Gly	Ile	Ser	Arg	Pro	Trp	Gln	Ala	Glu	Glu	Glu		
			100					105					110				
Ala	Thr	His	Arg	Ala	Ile	Met	Ile	Ala	Asp	Leu	Thr	Gly	Ala	Pro	Leu		
		115					120					125					
Tyr																	

<210> 517  
 <211> 377  
 <212> DNA  
 <213> Homo sapiens

<400> 517  
 acgcgtgaag ggctggtggg caggccttgc gcccctctg gggacagctc tcctccaccc  
 60  
 agacccttc gggccaacag tggggagggg ctgccgtctg agccactgtt ccgacagggg  
 120  
 attcgcgagt tccgggggag ctggggactg agctgcgggc ctctgggct ggggctcttc  
 180  
 tccgaggttg gaggcagctt tagaaacttg agacccttag ctggagaggg cagaaggggt  
 240  
 ccctgagctt cccagggaga aggggggcca atttgagct tgcttttcac ctgagatgag  
 300  
 gaatgggggt ggccaggccg agagcccagt ggggcatccc cagcacccat gaacatgcta  
 360  
 aggaagggga ggggccc  
 377

<210> 518  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 518  
 Met Phe Met Gly Ala Gly Asp Ala Pro Leu Gly Ser Arg Pro Gly His  
 1 5 10 15  
 Pro His Ser Ser Ser Gln Val Lys Ser Lys Leu Gln Ile Gly Pro Pro  
 20 25 30  
 Ser Pro Gly Glu Ala Gln Gly Pro Leu Leu Pro Ser Pro Ala Arg Gly  
 35 40 45  
 Leu Lys Phe Leu Lys Leu Pro Pro Thr Ser Glu Lys Ser Pro Ser Pro  
 50 55 60  
 Gly Gly Pro Gln Leu Ser Pro Gln Leu Pro Arg Asn Ser Arg Ile Pro  
 65 70 75 80  
 Cys Arg Asn Ser Gly Ser Asp Gly Ser Pro Ser Pro Leu Leu Ala Arg  
 85 90 95  
 Arg Gly Leu Gly Gly Gly Glu Leu Ser Pro Glu Gly Ala Gln Gly Leu  
 100 105 110  
 Pro Thr Ser Pro Ser Arg  
 115

<210> 519  
 <211> 311

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 519

gcgcgccagg gggaagggag agaaaacaca gaaaaatgag ggggaaatac cagatactga  
60  
agaatttaaa ttattataaa ggaacctttt ctgcaactct gaaaaatggt agaatatcca  
120  
aagaaattga taatttttcta ggaaaacatg acttaccaaa attaactcta gaaaagaatc  
180  
gatacacatc agtaacaaca gaagttgaga aagtagttaa catattgcca aacctggaat  
240  
tcattgattga attcttttgag atctactgtg agtacatact ctgcctctgt tcagctgttc  
300  
cagaacttaa g  
311

&lt;210&gt; 520

&lt;211&gt; 92

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 520

Met	Arg	Gly	Lys	Tyr	Gln	Ile	Leu	Lys	Asn	Leu	Asn	Tyr	Tyr	Lys	Gly
1				5					10					15	
Thr	Phe	Ser	Ala	Thr	Leu	Lys	Asn	Val	Arg	Ile	Ser	Lys	Glu	Ile	Asp
			20					25					30		
Asn	Phe	Leu	Gly	Lys	His	Asp	Leu	Pro	Lys	Leu	Thr	Leu	Glu	Lys	Asn
		35					40					45			
Arg	Tyr	Thr	Ser	Val	Thr	Thr	Glu	Val	Glu	Lys	Val	Val	Asn	Ile	Leu
	50					55					60				
Pro	Asn	Leu	Glu	Phe	Met	Ile	Glu	Phe	Phe	Glu	Ile	Tyr	Cys	Glu	Tyr
65					70					75				80	
Ile	Leu	Cys	Leu	Cys	Ser	Ala	Val	Pro	Glu	Leu	Lys				
			85						90						

&lt;210&gt; 521

&lt;211&gt; 352

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 521

nnngatgcca cgccggtcta cggaatctcc accggcttcg gcgcgcttgc ccgcccgcac  
60  
attccagaag agatgcgcgc gcagctgcag ctgtccctgg tgcgctccca cgcgcccggc  
120  
accggccctg aggtggaaga agaagtaatt cgcgcgctca tgctgctgcg cctatccacc  
180  
ctgtgtaccg gccgtaccgg cgtgcgcccc gtggtggtag aaacttatgc caaggcgctc  
240  
aacgccggca tcgtgccggg ggtgcgcgaa tacgggtcgc tgggctgctc cggcgacttg  
300  
gccccgctgg ctcaactgcgc cctagcgctg ttgggtgagg gtgaggtacg cn  
352

<210> 522  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 522  
 Xaa Asp Ala Thr Pro Val Tyr Gly Ile Ser Thr Gly Phe Gly Ala Leu  
 1 5 10 15  
 Ala Arg Arg His Ile Pro Glu Glu Met Arg Ala Gln Leu Gln Leu Ser  
 20 25 30  
 Leu Val Arg Ser His Ala Ala Gly Thr Gly Pro Glu Val Glu Glu Glu  
 35 40 45  
 Val Ile Arg Ala Leu Met Leu Leu Arg Leu Ser Thr Leu Cys Thr Gly  
 50 55 60  
 Arg Thr Gly Val Arg Pro Val Val Val Glu Thr Tyr Ala Lys Ala Leu  
 65 70 75 80  
 Asn Ala Gly Ile Val Pro Gly Val Arg Glu Tyr Gly Ser Leu Gly Cys  
 85 90 95  
 Ser Gly Asp Leu Ala Pro Leu Ala His Cys Ala Leu Ala Leu Leu Gly  
 100 105 110  
 Glu Gly Glu Val Arg  
 115

<210> 523  
 <211> 693  
 <212> DNA  
 <213> Homo sapiens

<400> 523  
 agcgcttcca cagtcgcgca aactcctctt ggtctagccg cccattcact ttcagttcca  
 60  
 tcagagccac caagctgcgg caccatctaa ggagaacatg tcccctggag gtctgttag  
 120  
 aagctcctgg ttgagaaggc cctgaagctg ggtggcatca atgtccagcc tctgctgagc  
 180  
 atatctgttg aaaatgcttt gttgggagcc atgttctgaa gggcttcctt tcattctgag  
 240  
 gttgaaatgg ctgctcaggt gcctgtcact gtctggcatt ttcaggaaga ttcggagcaa  
 300  
 gaactccgct gattttctcc gtgtctgtgc aaccacaaca tagttcccag ggctcagatg  
 360  
 gtaagtcag gtgaagtgc ggcggaattt attatttgag ctttggacag tgtttctgaa  
 420  
 cgaggaaaaa aacacgggtg gaaatttctc ccggaaccgc tgtgagccag ccagaatcac  
 480  
 ttggaaatcg agtggaatt ttgcatcttc tgctttcaaa tttgatggtg tgacagcaac  
 540  
 tgtgacgcac acgacaacat tggcgccttc cattggctct tgcacagaga agttgaattg  
 600  
 agcatcattt ccgggtcctc ctggcgtgtt tcctagaatc attgcttctt aaacattatt  
 660  
 tgggaccatc cttcgtggag tgtgtttcca tgg  
 693

<210> 524  
 <211> 193  
 <212> PRT  
 <213> Homo sapiens

<400> 524  
 Met Ile Leu Gly Asn Thr Pro Gly Gly Pro Gly Asn Asp Ala Gln Phe  
 1 5 10 15  
 Asn Phe Ser Val Gln Glu Pro Met Glu Gly Thr Asn Val Val Val Cys  
 20 25 30  
 Val Thr Val Ala Val Thr Pro Ser Asn Leu Lys Ala Glu Asp Ala Lys  
 35 40 45  
 Phe Pro Leu Asp Phe Gln Val Ile Leu Ala Gly Ser Gln Arg Phe Arg  
 50 55 60  
 Glu Lys Phe Pro Pro Val Phe Phe Ser Ser Phe Arg Asn Thr Val Gln  
 65 70 75 80  
 Ser Ser Asn Asn Lys Phe Arg Arg Asn Phe Thr Met Thr Tyr His Leu  
 85 90 95  
 Ser Pro Gly Asn Tyr Val Val Val Ala Gln Thr Arg Arg Lys Ser Ala  
 100 105 110  
 Glu Phe Leu Leu Arg Ile Phe Leu Lys Met Pro Asp Ser Asp Arg His  
 115 120 125  
 Leu Ser Ser His Phe Asn Leu Arg Met Lys Gly Ser Pro Ser Glu His  
 130 135 140  
 Gly Ser Gln Gln Ser Ile Phe Asn Arg Tyr Ala Gln Gln Arg Leu Asp  
 145 150 155 160  
 Ile Asp Ala Thr Gln Leu Gln Gly Leu Leu Asn Gln Glu Leu Leu Thr  
 165 170 175  
 Gly Pro Pro Gly Asp Met Phe Ser Leu Asp Gly Ala Ala Ala Trp Trp  
 180 185 190  
 Leu

<210> 525  
 <211> 1101  
 <212> DNA  
 <213> Homo sapiens

<400> 525  
 nggcaagttg caaagagagc ctcagagggtc cgaagagcgc tgcgctccta ctcgcggttcg  
 60  
 cttcttcctc ttctcgggttc cctactgtga aatcgcagcg acattttacaa aggcctccgg  
 120  
 gtcctaccga gaccgatccg cagcgttttg cccggtcgcg cctattgcat cgggagcccc  
 180  
 cgagcaccgg cgaaggactg gcgggtgggg tagggagggtg gcggcggcgg catggcgagg  
 240  
 ttcccgaagg ccgacctggc cgctgcagga gttatgttac tttgccactt cttcacggac  
 300  
 cagtttcagt tcgccgatgg gaaacccgga gaccaaattc ttgattggca gtagggagtt  
 360  
 actcaggcct tccctcacac agaggaggag gtggaagttg attcacacgc gtacagccac  
 420

aggtggaaaa gaaacttgga ctttctcaag gcggtagaca cgaaccgagc aagcgtcggc  
 480  
 caagactctc ttgagcccag aagcttcaca gacctgctgc tggatgatgg gcaggacaat  
 540  
 aacactcaga tcgaggagga tacagaccac aattactata tatctcgaat atatggtcca  
 600  
 tctgattctg ccagccggga tttatgggtg aacatagacc aaatggaaaa agataaagtg  
 660  
 aagattcatg gaatattgtc caatactcat cggcaagctg caagagtga tctgtccttc  
 720  
 gattttccat tttatggcca cttctacgt gaaatcactg tggcaaccgg gggtttcata  
 780  
 tacactggag aagtcgtaca tcgaatgcta acagccacac agtacatagc acctttaatg  
 840  
 gcaaatttcg atcccagtg atccagaaat tcaactgtca gatattttga taatggcaca  
 900  
 gcacttggtg tccagtggga ccatgtacat ctccaggata attataacct gggaagcttc  
 960  
 acattccagg caaccctgct catggatgga cgaatcatct ttggatacaa agaaattcct  
 1020  
 gtcttggtca cacagataag ttcaaccaat catccagtga aagtcggact gtccgatgca  
 1080  
 tttgtcgttg tccacaggat c  
 1101

<210> 526  
 <211> 290  
 <212> PRT  
 <213> Homo sapiens

<400> 526  
 Met Ala Arg Phe Pro Lys Ala Asp Leu Ala Ala Ala Gly Val Met Leu  
 1 5 10 15  
 Leu Cys His Phe Phe Thr Asp Gln Phe Gln Phe Ala Asp Gly Lys Pro  
 20 25 30  
 Gly Asp Gln Ile Leu Asp Trp Gln Tyr Gly Val Thr Gln Ala Phe Pro  
 35 40 45  
 His Thr Glu Glu Glu Val Glu Val Asp Ser His Ala Tyr Ser His Arg  
 50 55 60  
 Trp Lys Arg Asn Leu Asp Phe Leu Lys Ala Val Asp Thr Asn Arg Ala  
 65 70 75 80  
 Ser Val Gly Gln Asp Ser Leu Glu Pro Arg Ser Phe Thr Asp Leu Leu  
 85 90 95  
 Leu Asp Asp Gly Gln Asp Asn Asn Thr Gln Ile Glu Glu Asp Thr Asp  
 100 105 110  
 His Asn Tyr Tyr Ile Ser Arg Ile Tyr Gly Pro Ser Asp Ser Ala Ser  
 115 120 125  
 Arg Asp Leu Trp Val Asn Ile Asp Gln Met Glu Lys Asp Lys Val Lys  
 130 135 140  
 Ile His Gly Ile Leu Ser Asn Thr His Arg Gln Ala Ala Arg Val Asn  
 145 150 155 160  
 Leu Ser Phe Asp Phe Pro Phe Tyr Gly His Phe Leu Arg Glu Ile Thr  
 165 170 175  
 Val Ala Thr Gly Gly Phe Ile Tyr Thr Gly Glu Val Val His Arg Met

```

<400> 527
nngtgccgtg tgctcctcac attcacgcag actgagactg agctgcccga ggaagagtgt
60
gaaggcccca agctgcccac cgaacggccc tgcttcctgg aagcatgcga tgagagccccg
120
gcctcccgag agctagacat ccctctccct gaggacagtg agacggctta cgactgggag
180
tacgttgggt tcaccccttg cacagcaaca tgcttgggag gccatcaaga agccatagca
240
gtgtgcttac atatccagac ccagcagaca gtcaatgaca gcttgtgtga tatgggccac
300
cgctctccag ccatgagcca ggccctgtaac acagagccct gtccccccag gtggcatgtg
360
ggctcttggg ggccctgctc agctacctgt ggagttggaa ttcagacccg agatgtgtac
420
tgcttgcacc caggggagac ccctgcccct cctgaggagt gccgagatga aaagccccat
480
gctttacaag catgcaatca gtttgactgc ctcctgggtt ggcacattga agaatggcag
540
cagtgttcca ggacttgtgg cgggggaact cagaacagaa gagtcacctg tcggcagctg
600
ctaacggatg gcagcttttt gaatctctca gatgaattgt gccaaggacc caaggcatcg
660
tttcacaagt cctgtgccag gacagactgt cctccacatt tagctgtggg agactggtcg
720
aagtgttctg tcagttgtgg tgttggaaac cagagaagaa agcaggtgtg tcaaaggctg
780
gcagccaaag gtcggcgcac cccctcagt gagatgatgt gcagggatct accagggctc
840
cctcttgtaa gatcttgcca gatgcctgag tgcagtaaaa tcaaatacaga gatgaagaca
900
aaacttgggt agcaggggtc gcagatcctc agtgtccaga gagtctacat tcagacaagg
960

```

gaagagaagc gtattaacct gaccattggt agcagagcct atttgctgcc caacacatcc  
1020  
gtgattatta agtgccccgt gcgacgattc cagaaatctc tgatccagtg ggagaaggat  
1080  
ggccgttgcc tgcagaactc caaacggctt ggcatcacca agtcaggctc actaaaaatc  
1140  
cacggtcttg ctgccccga catcggcgtg taccggtgca ttgcaggctc tgcacaggaa  
1200  
acagttgtgc tcaagctcat tggactgac aaccggctca tcgcacgccc agccctcagg  
1260  
gagcctatga gggaaatacc tgggatggac cacagcgaag ccaatagttt gggagtcaca  
1320  
tggcacaaaa tgaggcaaat gtggaataac aaaaatgacc tttatctgga tgatgaccac  
1380  
attagtaacc agcctttctt gagagctctg ttaggccact gcagcaattc tgcaggaagc  
1440  
accaactcct gggagttgaa gaataagcag tttgaagcag cagttaaaca aggagcatat  
1500  
agcatggata cagcccagtt tgatgagctg ataagaaaca tgagtcagct catggaaacc  
1560  
ggagaggtca gcgatgatct tgcgtcccag ctgatatatc agctgggtggc cgaattagcc  
1620  
aaggcacagc caacacacat gcagtggcgg ggcatccagg aagagacacc tcctgctgct  
1680  
cagctcagag gggaaacagg gagtgtgtcc caaagctcgc atgcaaaaaa ctcaggcaag  
1740  
ctgacattca agccgaaagg acctgttctc atgaggcaaa gccaacctcc ctcaatttca  
1800  
tttaataaaa caataaattc caggattgga aatacagtat acattacaaa aaggacagag  
1860  
gtcatcaata tactgtgtga ccttattacc ccagtgagg ccacatatac atggaccaag  
1920  
gatggaacct tgttacagcc ctcagtaaaa ataattttgg atggaactgg gaagatacag  
1980  
atacagaatc ctacaaggaa agaacaaggc atatatgaat gttctgtagc taatcatctt  
2040  
ggttcagatg tggaaagtcc ttctgtgctg tatgcagagg cacctgtcat cttgtctgtt  
2100  
gaaagaaata tcaccaaacc agagcacaac catctgtctg ttgtggttgg aggcacgtg  
2160  
gaggcagccc ttggagcaaa cgtgacaatc cgatgtcctg taaaagggtg ccctcagcct  
2220  
aatataactt ggttgaagag aggaggatct ctgagtggca atgtttcctt gcttttcaat  
2280  
ggatccctgt tgttgcagaa tgtttccctt gaaaatgaag gaacctacgt ctgcatagcc  
2340  
accaatgctc ttggaaaggc agtggcaaca tctgtactcc acttgctgga acgaagatgg  
2400  
ccagagagta gaatcgtatt tctgcaagga cataaaaagt acattctcca ggcaaccaac  
2460  
actagaacca acagcaatga cccaacagga gaacccccgc ctcaagagcc tttttgggag  
2520  
cctggtaact ggtcacattg ttctgccacc tgtggtcatt tgggagcccg cattcagaga  
2580

ccccagtgtg tgatggccaa tgggcaggaa gtgagtgagg ccctgtgtga tcagcctcca  
2640  
gaagccactg gctgggtttg agccctgtaa catccgggac tgcccagcga ggtgggttcac  
2700  
aagtgtgtgg tcacagtgct ctgtgtcttg cggtgaagga taccacagtc ggcaggtgac  
2760  
gtgcaagcgg acaaaagcca atggaactgt gcaggtgggtg tctccaagag catgtgcccc  
2820  
taaagaccgg cctctgggaa gaaaaccatg ttttggtcat ccatgtgttc agtgggaacc  
2880  
agggaaccgg tgtcctggac gttgcatggg ccgtgctgtg aggatgcagc agcgtcacac  
2940  
agcttgtcaa cacaacagct ctgactccaa ctgtgatgac agaaagagac ccaccttaag  
3000  
aaggaactgc acatcagggg cctgtgatgt gtgttggcac acaggccctt ggaagccctg  
3060  
tacagcagcc tgtggcaggg gtttccagtc tcggaaagtc gactgtatcc acacaaggag  
3120  
ttgcaaacct gtggccaaga garactgtgt acagaaaaag aaaccaattt cctggcggca  
3180  
ctgtcttggg cctcctgtg atagagactg cacagacaca actcactact gtatgtttgt  
3240  
aaaacatctt aatttgtgtt ctctagaccg ctacaaaca aggtgctgcc agtcatgtca  
3300  
agagggataa acctttggag gggatcatgat gctgctgtga agataaaagt agaataataa  
3360  
agctcttttc cccatgtcgc tgattcaaaa acatgtattt cttaaaagac tagattctat  
3420  
ggatcaaaca gaggttgatg caaaaacacc actgttaagg tgtaaaagtga aattttccaa  
3480  
tggtagtttt atattccaat tttttaaaat gatgtattca aggatgaaca aaatactata  
3540  
gcatgcatgc cactgcactt gggacctcat catgtcagtt gaatcgagaa atcaccaaga  
3600  
ttatgagtgc atcctcacgt gctgcctctt tcctgtgata tgtagactag cacagagtgg  
3660  
tacatcctaa aaacttggga aacacagcaa cccatgactt cctcttctct caagttgcag  
3720  
gttttcaaca gttttataag gtatttgcac tttagaagct ctggccagta gttgttaaga  
3780  
tgttggcatt aatggcattt tcatagatcc ttggtttagt ctgtgaaaaa gaaaccatct  
3840  
ctctggatag gctgtcacac tgactgacct aagggttcat ggaagcatgg catcttgtcc  
3900  
ttgcttttag aacacccatg gaagaaaaca cagagtagat attgctgtca tttatacaac  
3960  
tacagaaatt tatctatgac ctaatgaggc atctcggaag tcaaagaaga gggaaagtta  
4020  
accttttcta ctgatttcgt agtatattca gagctttctt ttaagagctg tgaatgaaac  
4080  
tttttctaag cactattcta ttgcacacaa acagaaaacc aaagccttat tagacctaat  
4140  
ttatgcataa agtagtattc ctgagaactt tattttggaa aatttataag aaagtaatcc  
4200



aaataagaaa cacgatagtt gaaaataatt tttatagtaa ataattgttt tgggctgatt  
 4260  
 tttcagtaaa tccaaagtga cttagggttag aagttacact aaggaccagg ggttggaatc  
 4320  
 agaatttagt ttaagatttg aggaaaaggg taagggttag tttcagtttt aggattagag  
 4380  
 ctagaattgg gttagggtgag aaagaaagtt aagggttaagg ctagagttgt ctttaagggg  
 4440  
 taggggttag accagggttag gtcagggttg gattgggttt agattggggc cagtgcctgg  
 4500  
 gttagtata gtgtcaggat ggagggttag tttggagtaa gcgttggtgc tgaagtgagt  
 4560  
 tcaggctagc attaaattgt aagttctgaa gctgatttgg ttatggggtc tttccctgt  
 4620  
 atactaccag ttgtgtcttt agatggcaca caagtccaaa taagtgggtca tacttcttta  
 4680  
 ttcagggtct cagctgcttg tacacctgct gcctacatct tcttggcaac aaagttacct  
 4740  
 gccacaggct ctgctgagcc tagttcctgg tcagtaataa ctgaacagtg cattttggct  
 4800  
 ttggatgtgt ctgtggacaa gcttgcctgag tttctctacc atattctgag cacacggctc  
 4860  
 cttttgttct aacttcagct tcaactgacac tgggttgagc actactgtat gtggaggggt  
 4920  
 tgggtgattgg gaatggatgg gggacagtga ggaggacaca ccagcccatt agttgttaat  
 4980  
 catcaatcac atctgattgt tgaaggttat taaattaaaa gaaagatcat ttgtaacata  
 5040  
 ctctttgtat atatttatta tatgaaaggt gcaatatttt atttgtaca gtatgtaata  
 5100  
 aagacatggg acatatattt ttcttattaa caaaatttca tattaaattg cttcactttg  
 5160  
 tatttaaagt taaaagttac tatttttcat ttgctattgt actttcattg ttgtcattca  
 5220  
 attgacattc ctgtgtactg tattttacta ctgtttttat aacatgagag ttaatgtttc  
 5280  
 tgtttcatga tccttatgta attcagaaat aaatttactt tgattattca gtggcatcct  
 5340  
 tat  
 5343

<210> 528  
 <211> 886  
 <212> PRT  
 <213> Homo sapiens

<400> 528  
 Xaa Cys Arg Val Leu Leu Thr Phe Thr Gln Thr Glu Thr Glu Leu Pro  
 1 5 10 15  
 Glu Glu Glu Cys Glu Gly Pro Lys Leu Pro Thr Glu Arg Pro Cys Phe  
 20 25 30  
 Leu Glu Ala Cys Asp Glu Ser Pro Ala Ser Arg Glu Leu Asp Ile Pro  
 35 40 45  
 Leu Pro Glu Asp Ser Glu Thr Ala Tyr Asp Trp Glu Tyr Ala Gly Phe

50	55	60
Thr Pro Cys Thr Ala	Thr Cys Leu Gly Gly	His Gln Glu Ala Ile Ala
65	70	75
Val Cys Leu His Ile	Gln Thr Gln Gln Thr	Val Asn Asp Ser Leu Cys
85	90	95
Asp Met Val His Arg	Pro Pro Ala Met Ser	Gln Ala Cys Asn Thr Glu
100	105	110
Pro Cys Pro Pro Arg	Trp His Val Gly Ser	Trp Gly Pro Cys Ser Ala
115	120	125
Thr Cys Gly Val Gly	Ile Gln Thr Arg Asp	Val Tyr Cys Leu His Pro
130	135	140
Gly Glu Thr Pro Ala	Pro Pro Glu Glu Cys	Arg Asp Glu Lys Pro His
145	150	155
Ala Leu Gln Ala Cys	Asn Gln Phe Asp Cys	Pro Pro Gly Trp His Ile
165	170	175
Glu Glu Trp Gln Gln	Cys Ser Arg Thr Cys	Gly Gly Gly Thr Gln Asn
180	185	190
Arg Arg Val Thr Cys	Arg Gln Leu Leu Thr	Asp Gly Ser Phe Leu Asn
195	200	205
Leu Ser Asp Glu Leu	Cys Gln Gly Pro Lys	Ala Ser Ser His Lys Ser
210	215	220
Cys Ala Arg Thr Asp	Cys Pro Pro His Leu	Ala Val Gly Asp Trp Ser
225	230	235
Lys Cys Ser Val Ser	Cys Gly Val Gly Ile	Gln Arg Arg Lys Gln Val
245	250	255
Cys Gln Arg Leu Ala	Ala Lys Gly Arg Arg	Ile Pro Leu Ser Glu Met
260	265	270
Met Cys Arg Asp Leu	Pro Gly Leu Pro Leu	Val Arg Ser Cys Gln Met
275	280	285
Pro Glu Cys Ser Lys	Ile Lys Ser Glu Met	Lys Thr Lys Leu Gly Glu
290	295	300
Gln Gly Pro Gln Ile	Leu Ser Val Gln Arg	Val Tyr Ile Gln Thr Arg
305	310	315
Glu Glu Lys Arg Ile	Asn Leu Thr Ile Gly	Ser Arg Ala Tyr Leu Leu
325	330	335
Pro Asn Thr Ser Val	Ile Ile Lys Cys Pro	Val Arg Arg Phe Gln Lys
340	345	350
Ser Leu Ile Gln Trp	Glu Lys Asp Gly Arg	Cys Leu Gln Asn Ser Lys
355	360	365
Arg Leu Gly Ile Thr	Lys Ser Gly Ser Leu	Lys Ile His Gly Leu Ala
370	375	380
Ala Pro Asp Ile Gly	Val Tyr Arg Cys Ile	Ala Gly Ser Ala Gln Glu
385	390	395
Thr Val Val Leu Lys	Leu Ile Gly Thr Asp	Asn Arg Leu Ile Ala Arg
405	410	415
Pro Ala Leu Arg Glu	Pro Met Arg Glu Tyr	Pro Gly Met Asp His Ser
420	425	430
Glu Ala Asn Ser Leu	Gly Val Thr Trp His	Lys Met Arg Gln Met Trp
435	440	445
Asn Asn Lys Asn Asp	Leu Tyr Leu Asp Asp	Asp His Ile Ser Asn Gln
450	455	460
Pro Phe Leu Arg Ala	Leu Leu Gly His Cys	Ser Asn Ser Ala Gly Ser
465	470	475
Thr Asn Ser Trp Glu	Leu Lys Asn Lys Gln	Phe Glu Ala Ala Val Lys

WO 00/58473

485 490 495  
 Gln Gly Ala Tyr Ser Met Asp Thr Ala Gln Phe Asp Glu Leu Ile Arg  
 500 505 510  
 Asn Met Ser Gln Leu Met Glu Thr Gly Glu Val Ser Asp Asp Leu Ala  
 515 520 525  
 Ser Gln Leu Ile Tyr Gln Leu Val Ala Glu Leu Ala Lys Ala Gln Pro  
 530 535 540  
 Thr His Met Gln Trp Arg Gly Ile Gln Glu Glu Thr Pro Pro Ala Ala  
 545 550 555 560  
 Gln Leu Arg Gly Glu Thr Gly Ser Val Ser Gln Ser Ser His Ala Lys  
 565 570 575  
 Asn Ser Gly Lys Leu Thr Phe Lys Pro Lys Gly Pro Val Leu Met Arg  
 580 585 590  
 Gln Ser Gln Pro Pro Ser Ile Ser Phe Asn Lys Thr Ile Asn Ser Arg  
 595 600 605  
 Ile Gly Asn Thr Val Tyr Ile Thr Lys Arg Thr Glu Val Ile Asn Ile  
 610 615 620  
 Leu Cys Asp Leu Ile Thr Pro Ser Glu Ala Thr Tyr Thr Trp Thr Lys  
 625 630 635 640  
 Asp Gly Thr Leu Leu Gln Pro Ser Val Lys Ile Ile Leu Asp Gly Thr  
 645 650 655  
 Gly Lys Ile Gln Ile Gln Asn Pro Thr Arg Lys Glu Gln Gly Ile Tyr  
 660 665 670  
 Glu Cys Ser Val Ala Asn His Leu Gly Ser Asp Val Glu Ser Ser Ser  
 675 680 685  
 Val Leu Tyr Ala Glu Ala Pro Val Ile Leu Ser Val Glu Arg Asn Ile  
 690 695 700  
 Thr Lys Pro Glu His Asn His Leu Ser Val Val Val Gly Gly Ile Val  
 705 710 715 720  
 Glu Ala Ala Leu Gly Ala Asn Val Thr Ile Arg Cys Pro Val Lys Gly  
 725 730 735  
 Val Pro Gln Pro Asn Ile Thr Trp Leu Lys Arg Gly Gly Ser Leu Ser  
 740 745 750  
 Gly Asn Val Ser Leu Leu Phe Asn Gly Ser Leu Leu Leu Gln Asn Val  
 755 760 765  
 Ser Leu Glu Asn Glu Gly Thr Tyr Val Cys Ile Ala Thr Asn Ala Leu  
 770 775 780  
 Gly Lys Ala Val Ala Thr Ser Val Leu His Leu Leu Glu Arg Arg Trp  
 785 790 795 800  
 Pro Glu Ser Arg Ile Val Phe Leu Gln Gly His Lys Lys Tyr Ile Leu  
 805 810 815  
 Gln Ala Thr Asn Thr Arg Thr Asn Ser Asn Asp Pro Thr Gly Glu Pro  
 820 825 830  
 Pro Pro Gln Glu Pro Phe Trp Glu Pro Gly Asn Trp Ser His Cys Ser  
 835 840 845  
 Ala Thr Cys Gly His Leu Gly Ala Arg Ile Gln Arg Pro Gln Cys Val  
 850 855 860  
 Met Ala Asn Gly Gln Glu Val Ser Glu Ala Leu Cys Asp Gln Pro Pro  
 865 870 875 880  
 Glu Ala Thr Gly Trp Val  
 885

&lt;210&gt; 529

&lt;211&gt; 4566

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 529

nggcgagcta agccggagga tgtgcagctg cggcggcggc gccggctacg aagaggacgg  
60  
ggacaggcgc cgtgcgaacc gagcccagcc agccggagga cgcgggcagg gcgggacggg  
120  
agcccggact cgtctgccgc cgcctcgtc gccgtcgtgc cggccccgcg tccccgcgcg  
180  
cgagcgggag gagccgccgc cacctcgcgc ccgagccgcc gctagcgcgc gccgggcatg  
240  
gtccctcttt aaaggcgag gccgcggcgg cgggggcggg cgtgcggaac aaagcgccgg  
300  
cgcggggcct gcgggcggct cgggggccgc gatgggcgcg gcgggcccgc ggcggcggcg  
360  
gcgctgcccg ggccgggcct cgcggcgcta gggcgggctg gcctccgcgg gcgggggcag  
420  
cgggctgagg gcgcgcgggg cctgcggcgg cggcggcggc ggcggcggcg gcccggcggg  
480  
cggagcggcg cgggcatggc cgcgcgcggc cggcgcgccct ggctcagcgt gctgctcggg  
540  
ctcgtcctgg gcttcgtgct ggcctcgcgg ctcgtcctgc cccgggcttc cgagctgaag  
600  
cgagcgggcc cacggcgccg cgcagccccc gagggctgcc ggtccgggca ggcggcggct  
660  
tcccaggccg gcggggcgcg cggcgatgcg cgcggggcgc agctctggcc gcccggtcgc  
720  
gaccagatg gcggcccgcg cgacaggaac tttctcttcg tgggagtcag gaccgcccag  
780  
aaatacctgc agactcgggc cgtggccgcc tacagaacat ggtccaagac aattcctggg  
840  
aaagttcagt tcttctcaag tgagggttct gacacatctg taccaattcc agtagtgcca  
900  
ctacggggtg tggacgactc ctacccgccc cagaagaagt ccttcatgat gctcaagtac  
960  
atgcacgacc actacttggc caagtatgaa tggtttatga gagcagatga tgacgtgtac  
1020  
atcaaaggag accgtctgga gaacttcctg aggagtttga acagcagcga gcccctcttt  
1080  
cttgggcaga caggcctggg caccacggaa gaaatgggaa aactggccct ggagcctggt  
1140  
gagaacttct gcatgggggg gcctggcgtg atcatgagcc gggaggtgct tcggagaatg  
1200  
gtgccgcaca ttggcaagtg tctccgggag atgtacacca cccatgagga cgtggaggtg  
1260  
ggaagggtg tccggagggt tgcaggggtg cagtgtgtct ggtcttatga gatgcagcag  
1320  
cttttttatg agaattacga gcagaacaaa aaggggtaca ttagagatct ccataacagt  
1380  
aaaattcacc aagctatcac attacacccc aacaaaaacc caccctacca gtacaggctc  
1440  
cacagctaca tgctgagccg caagatatcc gagctccgcc atcgacacat acagctgcac  
1500

cgcgaaattg tcctgatgag caaatacagc aacacagaaa ttcataaaga ggacctccag  
1560  
ctgggaatcc ctccctcctt catgaggttt cagccccgcc agcgagagga gattctggaa  
1620  
tgggagtttc tgactggaaa atacttgat tccgcagttg acggccagcc cctcgaaga  
1680  
ggaatggact ccgcccagag ggaagccttg gacgacattg tcatgcaggt catggagatg  
1740  
atcaatgcca acgccaagac cagagggcgc atcattgact tcaaagagat ccagtacggc  
1800  
taccgccggg tgaaccccat gtatggggct gactacatcc tggacctgct gcttctgtac  
1860  
aaaaagcaca aagggaagaa atgacggtc cctgtgagga ggcacgcgta ttacagcag  
1920  
actttcagca aaatccagtt tgtggagcat gaggagctgg atgcacaaga gttggccaag  
1980  
agaatcaatc aggaatctgg atccttgctc tttctctcaa actccctgaa gaagctcgtc  
2040  
ccctttcagc tccctgggtc gaagagtggc cacaagaac ccaaagataa aaagataaac  
2100  
atactgattc ctttgtctgg gcgtttcgac atgtttgtga gatttatggg aaactttgag  
2160  
aagacgtgac ttatcccca aacagaacgc aagctcgtgg ttctgctttt caattctgac  
2220  
tccaacctg acaaggccaa acaagttgaa ctgatgacag attaccgcat taagtacct  
2280  
aaagccgaca tgcagatttt gcctgtgtct ggagagtttt caagagccct ggccctggaa  
2340  
gtaggatcct cccagtttaa caatgaatct ttgctcttct tctgcgacgt cgacctcgtg  
2400  
tttactacag aattccttca gcgatgtcga gcaaatacag ttctgggcca acaaatatat  
2460  
tttccaatca tcttcagcca gtatgaccca aagattgttt atagtgggaa agttcccagt  
2520  
gacaaccatt ttgcctttac tcagaaaact ggcttctgga gaaactatgg gtttggcatc  
2580  
acgtgtattt ataagggaga tcttgtccga gtgggtggct ttgatgtttc catccaaggc  
2640  
tgggggctgg aggatgtgga ctttttcaac aagggtgtcc aggcaggttt gaagacgttt  
2700  
aggagccagg aagtaggagt agtccacgac caccatcctg tcttttgtga tccaatctt  
2760  
gaccccaaac agtacaaaat gtgcttgggg tccaaagcat cgacctatgg gtccacacag  
2820  
cagctggctg agatgtggct ggaaaaaat gatccaagtt acagtaaaag cagcaataat  
2880  
aatggctcag tgaggacagc ctaatgtcca gctttgctgg aaaagacgtt ttaattatc  
2940  
taatttattt ttcaaaaatt ttttgatga tcagtttttg aagtccttat acaaggatat  
3000  
attttacaag tggttttctt acataggact cctttaagat tgagctttct gaacaagaag  
3060  
gtgatcagtg tttgccttg aacacatctt cttgctgaac attatgtagc agacctgctt  
3120

aactttgact tgaaatgtac ctgatgaaca aaactttttt aaaaaaatgt tttcttttga  
3180  
gaccctttgc tccagtccta tggcagaaaa cgtgaacatt cctgcaaagt attattgtaa  
3240  
caaaacactg taactctggc aaatgttctg ttgtgattgt taacattcca cagattctac  
3300  
cttttgtgtt ttgttttttt ttttttacia ttgttttaaa gccatttcat gttccagtgt  
3360  
taagataagg aaatgtgata atagctgttt catcattgtc ttcaggagag ctttccagag  
3420  
ttgatcattt cccctcatgg tactctgtct agcatggcca cgtaggtttt ttgtttgttt  
3480  
tgttttgttc tttttttgag acggagtctc actctgttac ccaggctgga atgcagtggc  
3540  
gcaatcttgg ctacttttaa cctccacttc cctgggtcaa gcaattcccc tgcctttgcc  
3600  
tcccagtag ctgggattac aggcacacac caccacgccc agctagtttt tttgtatttt  
3660  
tagtagagac ggggtttcac catgcaagcc cagctggcca cgtaggtttt aaagcaaggg  
3720  
gcgtgaagaa ggcacagtga ggtatgtggc tgttctcgtg gtagttcatt cggcctaaat  
3780  
agacctggca ttaaatttca agaaggattt ggcattttct cttcttgacc cttctcttta  
3840  
aagggtaaaa tattaatgtt tagaatgaca aagatgaatt attacaataa atctgatgta  
3900  
cacagactga aacacacaca catacaccct aatcaaaacg ttggggaaaa atgtatttgg  
3960  
ttttgttctt ttcactctgt ctgtgttatg tgggtggaga tggttttcat tctttcatta  
4020  
ctgttttgtt ttatcctttg tatctgaaat acctttaatt tatttaatat ctgttggtca  
4080  
gagctctgcc atttcttgag tacctgttag ttagtattat ttatgtgtat cgggagtgtg  
4140  
tttagtctgt tttatttgca gtaaacegat ctccaaagat ttccttttgg aaacgctttt  
4200  
tccccctctt aattttttata ttccttactg ttttactaaa tattaagtgt tctttgacaa  
4260  
ttttgggtgt catgtgtttt ggggacaaaa gtgaaatgaa tctgtcatta taccagaaag  
4320  
ttaaattctc agatcaaagt tgccttaata aatttgtttt catttagatt tcaaacagtg  
4380  
atagacttgc catttttaata cacgtcattg gagggctgcg tatttgtaaa tagcctgatg  
4440  
ctcatttggg aaaataaacc agtgaacaat atttttctat tgtacttttc gaaccatttt  
4500  
gtctcattat tctgttttta gctgaagaat tgtattacat ttggagagta aaaaacttaa  
4560  
acacga  
4566

&lt;210&gt; 530

&lt;211&gt; 802

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 530

```

Met Ala Ala Arg Gly Arg Arg Ala Trp Leu Ser Val Leu Leu Gly Leu
 1          5          10          15
Val Leu Gly Phe Val Leu Ala Ser Arg Leu Val Leu Pro Arg Ala Ser
 20          25          30
Glu Leu Lys Arg Ala Gly Pro Arg Arg Arg Ala Ser Pro Glu Gly Cys
 35          40          45
Arg Ser Gly Gln Ala Ala Ala Ser Gln Ala Gly Gly Ala Arg Gly Asp
 50          55          60
Ala Arg Gly Ala Gln Leu Trp Pro Pro Gly Ser Asp Pro Asp Gly Gly
65          70          75          80
Pro Arg Asp Arg Asn Phe Leu Phe Val Gly Val Met Thr Ala Gln Lys
 85          90          95
Tyr Leu Gln Thr Arg Ala Val Ala Ala Tyr Arg Thr Trp Ser Lys Thr
100          105          110
Ile Pro Gly Lys Val Gln Phe Phe Ser Ser Glu Gly Ser Asp Thr Ser
115          120          125
Val Pro Ile Pro Val Val Pro Leu Arg Gly Val Asp Asp Ser Tyr Pro
130          135          140
Pro Gln Lys Lys Ser Phe Met Met Leu Lys Tyr Met His Asp His Tyr
145          150          155          160
Leu Asp Lys Tyr Glu Trp Phe Met Arg Ala Asp Asp Asp Val Tyr Ile
165          170          175
Lys Gly Asp Arg Leu Glu Asn Phe Leu Arg Ser Leu Asn Ser Ser Glu
180          185          190
Pro Leu Phe Leu Gly Gln Thr Gly Leu Gly Thr Thr Glu Glu Met Gly
195          200          205
Lys Leu Ala Leu Glu Pro Gly Glu Asn Phe Cys Met Gly Gly Pro Gly
210          215          220
Val Ile Met Ser Arg Glu Val Leu Arg Arg Met Val Pro His Ile Gly
225          230          235          240
Lys Cys Leu Arg Glu Met Tyr Thr Thr His Glu Asp Val Glu Val Gly
245          250          255
Arg Cys Val Arg Arg Phe Ala Gly Val Gln Cys Val Trp Ser Tyr Glu
260          265          270
Met Gln Gln Leu Phe Tyr Glu Asn Tyr Glu Gln Asn Lys Lys Gly Tyr
275          280          285
Ile Arg Asp Leu His Asn Ser Lys Ile His Gln Ala Ile Thr Leu His
290          295          300
Pro Asn Lys Asn Pro Pro Tyr Gln Tyr Arg Leu His Ser Tyr Met Leu
305          310          315          320
Ser Arg Lys Ile Ser Glu Leu Arg His Arg Thr Ile Gln Leu His Arg
325          330          335
Glu Ile Val Leu Met Ser Lys Tyr Ser Asn Thr Glu Ile His Lys Glu
340          345          350
Asp Leu Gln Leu Gly Ile Pro Pro Ser Phe Met Arg Phe Gln Pro Arg
355          360          365
Gln Arg Glu Glu Ile Leu Glu Trp Glu Phe Leu Thr Gly Lys Tyr Leu
370          375          380
Tyr Ser Ala Val Asp Gly Gln Pro Pro Arg Arg Gly Met Asp Ser Ala
385          390          395          400
Gln Arg Glu Ala Leu Asp Asp Ile Val Met Gln Val Met Glu Met Ile

```



<211> 321



WO 00/58473

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 531

ngatgatgaa tccccccgca gcctcgtcaa tatggggggc ttcctacccc agcaaaaggc  
 60  
 acggcaatac gtctcgaaca aaggtctttt gtttcgaaat aacaaggggt tagagctaag  
 120  
 aggaagaagc gtgaaacgct gtaggaccag cgtttcgaac gcccccgagg tgaaccctcg  
 180  
 ggggcgtctg aatcaggcca gttgggcctg ggacgacagc ggttgcagcg gcagcaatgg  
 240  
 cgcgtgcgga tcagccttga tcgattcacg ccaggcgccg agccactcgg cgtggccttc  
 300  
 gttccacacc tgctggtgca g  
 321

&lt;210&gt; 532

&lt;211&gt; 96

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 532

Met	Gly	Gly	Phe	Leu	Pro	Gln	Gln	Lys	Ala	Arg	Gln	Tyr	Val	Ser	Asn
1				5					10					15	
Lys	Gly	Leu	Leu	Phe	Arg	Asn	Asn	Lys	Gly	Leu	Glu	Leu	Arg	Gly	Arg
			20					25						30	
Ser	Val	Lys	Arg	Cys	Arg	Thr	Ser	Val	Ser	Asn	Ala	Pro	Glu	Val	Asn
		35					40				45				
Pro	Arg	Gly	Arg	Leu	Asn	Gln	Ala	Ser	Trp	Ala	Trp	Asp	Asp	Ser	Gly
	50				55					60					
Cys	Ser	Gly	Ser	Asn	Gly	Ala	Cys	Gly	Ser	Ala	Leu	Ile	Asp	Ser	Arg
65				70					75					80	
Gln	Ala	Pro	Ser	His	Ser	Ala	Trp	Pro	Ser	Phe	His	Thr	Cys	Trp	Cys
			85					90						95	

&lt;210&gt; 533

&lt;211&gt; 335

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 533

nagtttccgg tgaaccgctc cgcaatgcct cgtgacatcg acttcagcga agccaacagg  
 60  
 agcatcatcg acaacatggc aactgcctca atcccgtttt tccgaaccca caaaaactgg  
 120  
 gagacgtggt cgagtcaggt ccggcatttc attagccttt tacacccaaa agtcaccctc  
 180  
 accaacattg acaacgtcct caacaaagat cacctgcggt ggctacactt tcttttggag  
 240  
 ggtcgcctgg agccaaacgt ggccttgatt gtccagggt actgttcgcc tggcaagctg  
 300  
 taccgcaagc ttgaggagct atatgcccct tctgc  
 335

<210> 534  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 534  
 Met Pro Arg Asp Ile Asp Phe Ser Glu Ala Asn Arg Ser Ile Ile Asp  
 1 5 10 15  
 Asn Met Ala Thr Ala Ser Ile Pro Leu Phe Arg Thr His Lys Asn Trp  
 20 25 30  
 Glu Thr Trp Ser Ser Gln Val Arg His Phe Ile Ser Leu Leu His Pro  
 35 40 45  
 Lys Val Thr Leu Thr Asn Ile Asp Asn Val Leu Asn Lys Asp His Leu  
 50 55 60  
 Arg Trp Leu His Phe Leu Leu Glu Gly Arg Leu Glu Pro Asn Val Arg  
 65 70 75 80  
 Leu Ile Val Gln Gly Tyr Cys Ser Pro Gly Lys Leu Tyr Arg Lys Leu  
 85 90 95  
 Glu Glu Leu Tyr Ala Pro Ser  
 100

<210> 535  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<400> 535  
 acgcgtctct acagccggac taagcacagg ctcagccccg gtcgccatgc gcccaggctc  
 60  
 gggtatcagc cgaggaatcc acggcgaaat gaccagtagc ggccctaata caactatgct  
 120  
 gccgagcagc agacgtcgag gtcgggtcat gaggatgccg acggccaccg cgaccgggta  
 180  
 taccacaat gcaggaacaa ggctgatagc tagggctgac cacagagcca ggccgcctgc  
 240  
 cgaggaaacg cccccacct ggtgactgcc agtatcagca ccgcgcagct caacgacgtc  
 300  
 aacagtctcg ggattgacca accgccacgt atgcagggcc atgtggggga gaatcacccc  
 360  
 caacgccaat gctgtcaccc agcctcgggc taggcccgcg gc  
 402

<210> 536  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 536  
 Met Ala Leu His Thr Trp Arg Leu Val Asn Pro Glu Thr Val Asp Val  
 1 5 10 15  
 Val Glu Leu Arg Gly Ala Asp Thr Gly Ser His Gln Val Gly Gly Val  
 20 25 30  
 Ser Ser Ala Gly Gly Leu Ala Leu Trp Ser Ala Leu Ala Ile Ser Leu

WO 00/58473

35 40 45  
 Val Pro Ala Leu Trp Val Tyr Pro Val Ala Val Ala Val Gly Ile Leu  
 50 55 60  
 Met Thr Arg Pro Arg Arg Leu Leu Leu Gly Ser Ile Val Val Leu Gly  
 65 70 75 80  
 Pro Leu Leu Val Ile Ser Pro Trp Ile Pro Arg Leu Ile Thr Glu Pro  
 85 90 95  
 Gly Arg Met Ala Thr Gly Ala Glu Pro Val Leu Ser Pro Ala Val Glu  
 100 105 110  
 Thr Arg

<210> 537  
 <211> 404  
 <212> DNA  
 <213> Homo sapiens

<400> 537  
 gtgcacatcg gcggcaccga cttcgacaaa caactctcgc tggctggcat gatgccgctg  
 60  
 ttcggctacg gcagccgcat gaagagcggc gcctacatgc ccaccagcca ccacatgaac  
 120  
 ctggcgacct ggcacacccat caactcgggtg tactcgcaaa aatcccagct ggccctgggc  
 180  
 agcatgcgct acgacatcga agacaccggc ggcacgcacc gcctgttcaa gctgatcgaa  
 240  
 cagcgtgctg ggcactggct tgccatggaa gtggaagaaa ccaagatcca gctcaccat  
 300  
 caagacagcc gccacgtgcc gctggaccgc atcgaagcgg gcctgagcgt agacctgagc  
 360  
 cgggcgctgt tcgaatcgtc catcgacaac ctgctcgaac gcgt  
 404

<210> 538  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 538  
 Met Met Pro Leu Phe Gly Tyr Gly Ser Arg Met Lys Ser Gly Ala Tyr  
 1 5 10 15  
 Met Pro Thr Ser His His Met Asn Leu Ala Thr Trp His Thr Ile Asn  
 20 25 30  
 Ser Val Tyr Ser Gln Lys Ser Gln Leu Ala Leu Gly Ser Met Arg Tyr  
 35 40 45  
 Asp Ile Glu Asp Thr Gly Gly Ile Asp Arg Leu Phe Lys Leu Ile Glu  
 50 55 60  
 Gln Arg Ala Gly His Trp Leu Ala Met Glu Val Glu Glu Thr Lys Ile  
 65 70 75 80  
 Gln Leu Thr His Gln Asp Ser Arg His Val Pro Leu Asp Arg Ile Glu  
 85 90 95  
 Ala Gly Leu Ser Val Asp Leu Ser Arg Ala Leu Phe Glu Ser Ser Ile  
 100 105 110  
 Asp Asn Leu Leu Glu Arg

115

<210> 539  
 <211> 534  
 <212> DNA  
 <213> Homo sapiens

<400> 539  
 nnacgcgtga aaaagaagaa aatgaaggaa agcgaggctg acagcgaggt gaagcatcaa  
 60  
 ccaattttca taaaagaaag attgaagctt tttgaaatac tgaagaaaga ccatcagctc  
 120  
 ttacttgcca tttatggaaa aaagggggat acaagcaaca tcacacagt aagagtggct  
 180  
 gatgggcaaa cagtgcagg ggaagtctgg aaaacaacgc cttaccaagt ggctgctgaa  
 240  
 attagtcagg aactggctga aagcacggta atagccaaag tcaatgggtga actgtgggac  
 300  
 ctggaccgcc cattggaagg ggactcttct ctagagctgc ttacatttga taatgaggaa  
 360  
 gctcaagctg tgagtatttt aaaaccagac agccaaactt tgggtagtta tgttgtaaac  
 420  
 tacattatat aagaggccac atattgaatt cacgaatgtt gagttttttg ggggtttcta  
 480  
 agatttaaaa tttgattatt gatgtttaat aaatatttgc ctcatgaatg ttaa  
 534

<210> 540  
 <211> 143  
 <212> PRT  
 <213> Homo sapiens

<400> 540  
 Xaa Arg Val Lys Lys Lys Lys Met Lys Glu Ser Glu Ala Asp Ser Glu  
 1 5 10 15  
 Val Lys His Gln Pro Ile Phe Ile Lys Glu Arg Leu Lys Leu Phe Glu  
 20 25 30  
 Ile Leu Lys Lys Asp His Gln Leu Leu Leu Ala Ile Tyr Gly Lys Lys  
 35 40 45  
 Gly Asp Thr Ser Asn Ile Ile Thr Val Arg Val Ala Asp Gly Gln Thr  
 50 55 60  
 Val Gln Gly Glu Val Trp Lys Thr Thr Pro Tyr Gln Val Ala Ala Glu  
 65 70 75 80  
 Ile Ser Gln Glu Leu Ala Glu Ser Thr Val Ile Ala Lys Val Asn Gly  
 85 90 95  
 Glu Leu Trp Asp Leu Asp Arg Pro Leu Glu Gly Asp Ser Ser Leu Glu  
 100 105 110  
 Leu Leu Thr Phe Asp Asn Glu Glu Ala Gln Ala Val Ser Ile Leu Lys  
 115 120 125  
 Pro Asp Ser Gln Thr Leu Gly Ser Tyr Val Val Asn Tyr Ile Ile  
 130 135 140

<210> 541  
 <211> 551

WO 00/58473

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 541

ggtaccgagc tgcgcgtgtg gtatgcggcc ttctatgcca agaagatgga caagcccatg  
 60  
 ctgaagcagg ccggctctgg cgtccacgct gcaggcaccc cagaaaacag cgcccccggtg  
 120  
 gagtcggagc ccagccagtg ggcgtgtaaa gtgtgttctg ccaccttcct ggagctgcag  
 180  
 ctctcaatg gtaaggagga cgtgtgggga gccccagttg taaaactcct gtgtcgattt  
 240  
 ctctctgact tacgctgtca cctgtctgcg gctgtcgggg gtgtcccaga ctttgtcctg  
 300  
 tctgccccat tgccccacaa tgtagtcgcc agaaccaagg ctttctcagg gtttaaagct  
 360  
 tctgggcagt cccgcttccc acccccgacc cctgcaggcc tcactcctca ctctctctgg  
 420  
 ttgggaagtt gcatttcagc tgggcgcctt gactctggag cactggcagg ggccaggggc  
 480  
 caggagccag ccgtggcatg tgttgtgcac tcttgccctt gttgtctcta cttgacagcc  
 540  
 ccctcacgcg t  
 551

&lt;210&gt; 542

&lt;211&gt; 168

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 542

Met	Asp	Lys	Pro	Met	Leu	Lys	Gln	Ala	Gly	Ser	Gly	Val	His	Ala	Ala	15
1				5					10							
Gly	Thr	Pro	Glu	Asn	Ser	Ala	Pro	Val	Glu	Ser	Glu	Pro	Ser	Gln	Trp	30
		20					25									
Ala	Cys	Lys	Val	Cys	Ser	Ala	Thr	Phe	Leu	Glu	Leu	Gln	Leu	Leu	Asn	45
		35				40						45				
Gly	Lys	Glu	Asp	Val	Trp	Gly	Ala	Pro	Val	Val	Lys	Leu	Leu	Cys	Arg	60
	50					55					60					
Phe	Leu	Ser	Asp	Leu	Arg	Cys	His	Leu	Ser	Ala	Ala	Val	Gly	Gly	Val	80
65				70					75							
Pro	Asp	Phe	Val	Leu	Ser	Ala	Pro	Leu	Pro	His	Asn	Val	Val	Ala	Arg	95
			85					90								
Thr	Lys	Ala	Phe	Ser	Gly	Phe	Lys	Ala	Ser	Gly	Gln	Ser	Arg	Phe	Pro	110
		100						105								
Pro	Pro	Thr	Pro	Ala	Gly	Leu	Thr	Pro	His	Ser	Ser	Trp	Leu	Gly	Ser	125
		115				120										
Cys	Ile	Ser	Ala	Gly	Arg	Leu	Asp	Ser	Gly	Ala	Leu	Ala	Gly	Ala	Arg	140
	130					135					140					
Gly	Gln	Glu	Pro	Ala	Val	Ala	Cys	Val	Val	His	Ser	Cys	Leu	Cys	Cys	160
145				150					155							
Leu	Tyr	Leu	Thr	Ala	Pro	Ser	Arg									
				165												

<210> 543  
<211> 349  
<212> DNA  
<213> Homo sapiens

<400> 543  
nnaaagccgg acatgaatac ccgcattgct ggcaaaactg tcctgaccat cattctggcc  
60  
gggggcaaag gcagccgcct ggccccgatg accgatcagg tggccaaacc agccgtgccg  
120  
tttatgggga cgtaccgcct gattgacttt tcgctgtcca acattgtcca cagcggcttg  
180  
caggacgtct ggatcattga gcaaaacctg ccccatagct taaacgagca cctggctggg  
240  
gggcgtcctt gggatctgga ccgcacccgc ggtggcctga aggtcatgcc gcccttttcc  
300  
ggccctgccg atgaggacgg tggcttttcc gaaggcaacg cacacgcgt  
349

<210> 544  
<211> 116  
<212> PRT  
<213> Homo sapiens

<400> 544  
Xaa Lys Pro Asp Met Asn Thr Arg Ile Ala Gly Lys Thr Val Leu Thr  
1 5 10 15  
Ile Ile Leu Ala Gly Gly Lys Gly Ser Arg Leu Ala Pro Met Thr Asp  
20 25 30  
Gln Val Ala Lys Pro Ala Val Pro Phe Met Gly Thr Tyr Arg Leu Ile  
35 40 45  
Asp Phe Ser Leu Ser Asn Ile Val His Ser Gly Leu Gln Asp Val Trp  
50 55 60  
Ile Ile Glu Gln Asn Leu Pro His Ser Leu Asn Glu His Leu Ala Gly  
65 70 75 80  
Gly Arg Ser Trp Asp Leu Asp Arg Thr Arg Gly Gly Leu Lys Val Met  
85 90 95  
Pro Pro Phe Ser Gly Pro Ala Asp Glu Asp Gly Gly Phe Ser Glu Gly  
100 105 110  
Asn Ala His Ala  
115

<210> 545  
<211> 390  
<212> DNA  
<213> Homo sapiens

<400> 545  
catgatgcaa aaacagacat gcttattttca aaatataaaa gtgaaaaaga tcgttttagca  
60  
caagaaattg ttggtgtcat cacagggttct gcaatgccgg gtgggttcagc aaaccgtatc  
120  
ccaaataaag caggctcaaa tccagaaggc tctattgcaa cgcgttttat tgcagaaaca  
180

WO 00/58473

atgtataacg aactcaaaac agtggattta actattcaaa atgctggcgg tgtacgcgca  
 240  
 gatattttac cggggaatgt aacctttaac gatgcttata ctttcttacc tttcgggaat  
 300  
 acgttatata cctataaaat ggaaagtcca ttagtgaaac aagtgcctga agatgcaatg  
 360  
 ctatttgctt tgggtcccc ccccccccc  
 390

<210> 546  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 546  
 His Asp Ala Lys Thr Asp Met Leu Ile Ser Lys Tyr Lys Ser Glu Lys  
 1 5 10 15  
 Asp Arg Leu Ala Gln Glu Ile Val Gly Val Ile Thr Gly Ser Ala Met  
 20 25 30  
 Pro Gly Gly Ser Ala Asn Arg Ile Pro Asn Lys Ala Gly Ser Asn Pro  
 35 40 45  
 Glu Gly Ser Ile Ala Thr Arg Phe Ile Ala Glu Thr Met Tyr Asn Glu  
 50 55 60  
 Leu Lys Thr Val Asp Leu Thr Ile Gln Asn Ala Gly Gly Val Arg Ala  
 65 70 75 80  
 Asp Ile Leu Pro Gly Asn Val Thr Phe Asn Asp Ala Tyr Thr Phe Leu  
 85 90 95  
 Pro Phe Gly Asn Thr Leu Tyr Thr Tyr Lys Met Glu Ser Ser Leu Val  
 100 105 110  
 Lys Gln Val Leu Glu Asp Ala Met Leu Phe Ala Leu Gly Pro Pro Pro  
 115 120 125  
 Pro Pro  
 130

<210> 547  
 <211> 306  
 <212> DNA  
 <213> Homo sapiens

<400> 547  
 aagcttggtt ttctgatttt tattcaaate tctatcatgg atgaagcatg cagtttcaga  
 60  
 atcagttcag tgttgacaac atatcaagat attctgcagt caatctcaat gtatgttcat  
 120  
 gaagcctcca acatattttg tgggatacca tctttgtcag gcattgtgct aggcactgtc  
 180  
 cctgcagtga ataagaaaga caggatttct gtatttatgg ggcttagtac caagttgttc  
 240  
 tcaaactttc atgtttgtgt atacaaatca gctgaggcct tcaactaaact cnnnnnccnn  
 300  
 nnnccnn  
 306

<210> 548

<211> 90  
 <212> PRT  
 <213> Homo sapiens

<400> 548  
 Met Asp Glu Ala Cys Ser Phe Arg Ile Ser Ser Val Leu Thr Thr Tyr  
 1 5 10 15  
 Gln Asp Ile Leu Gln Ser Ile Ser Met Tyr Val His Glu Ala Ser Asn  
 20 25 30  
 Ile Phe Cys Gly Ile Pro Ser Leu Ser Gly Ile Val Leu Gly Thr Val  
 35 40 45  
 Pro Ala Val Asn Lys Lys Asp Arg Ile Ser Val Phe Met Gly Leu Ser  
 50 55 60  
 Thr Lys Leu Phe Ser Asn Phe His Val Cys Val Tyr Lys Ser Ala Glu  
 65 70 75 80  
 Ala Phe Thr Lys Leu Xaa Xaa Xaa Xaa Xaa  
 85 90

<210> 549  
 <211> 780  
 <212> DNA  
 <213> Homo sapiens

<400> 549  
 nnacgcgtac ttccaacacc tatgctccag tatggaggac gggtaaagtc tcttgtaa  
 60  
 gttttaatca tacacatatt gtctgtaagt atgaagagaa aggcataatca gaaatatttc  
 120  
 aattcagcga ttgaaatgt ttactttctg tttattgaaa atttttgttc tttttcacca  
 180  
 tgttattttt ttctcctcgt gtagaatcgg acagtagcaa caccgagcca tggagtatgg  
 240  
 gacatgcgag ggaaacaatt ccacacagga gttgaaatca aaatgtgggc tatcgcttgc  
 300  
 tttgccacac agaggcagtg cagagaagaa atattgaagg gtttcacaga ccagctgcgt  
 360  
 aagattttcta aggatgcagg gatgcccac cagggccagc catgcttctg caaatatgca  
 420  
 cagggggcag acagcgtaga gcccatgttc cggcatctca agaacacata ttctggccta  
 480  
 cagcttatta tcgtcatcct gccggggaag acaccagtgt atgcggaagt gaaacgtgta  
 540  
 ggagacacac ttttgggtat ggctacacaa tgtgttcaag tcaagaatgt aataaaaaca  
 600  
 tctcctcaaa ctctgtcaaa cttgtgccta aagataaatg ttaaactcgg agggatcaat  
 660  
 aatattcttg tacctcatca aagaccttct gtgttccagc aaccagtgat ctttttggga  
 720  
 gccgatgtca ctcatccacc tgctggtgat ggaaagaagc cttctattgc tgctgttgta  
 780

<210> 550  
 <211> 192  
 <212> PRT



<213> Homo sapiens

<400> 550  
 Asn Arg Thr Val Ala Thr Pro Ser His Gly Val Trp Asp Met Arg Gly  
 1 5 10 15  
 Lys Gln Phe His Thr Gly Val Glu Ile Lys Met Trp Ala Ile Ala Cys  
 20 25 30  
 Phe Ala Thr Gln Arg Gln Cys Arg Glu Glu Ile Leu Lys Gly Phe Thr  
 35 40 45  
 Asp Gln Leu Arg Lys Ile Ser Lys Asp Ala Gly Met Pro Ile Gln Gly  
 50 55 60  
 Gln Pro Cys Phe Cys Lys Tyr Ala Gln Gly Ala Asp Ser Val Glu Pro  
 65 70 75 80  
 Met Phe Arg His Leu Lys Asn Thr Tyr Ser Gly Leu Gln Leu Ile Ile  
 85 90 95  
 Val Ile Leu Pro Gly Lys Thr Pro Val Tyr Ala Glu Val Lys Arg Val  
 100 105 110  
 Gly Asp Thr Leu Leu Gly Met Ala Thr Gln Cys Val Gln Val Lys Asn  
 115 120 125  
 Val Ile Lys Thr Ser Pro Gln Thr Leu Ser Asn Leu Cys Leu Lys Ile  
 130 135 140  
 Asn Val Lys Leu Gly Gly Ile Asn Asn Ile Leu Val Pro His Gln Arg  
 145 150 155 160  
 Pro Ser Val Phe Gln Gln Pro Val Ile Phe Leu Gly Ala Asp Val Thr  
 165 170 175  
 His Pro Pro Ala Gly Asp Gly Lys Lys Pro Ser Ile Ala Ala Val Val  
 180 185 190

<210> 551  
 <211> 291  
 <212> DNA  
 <213> Homo sapiens

<400> 551  
 nnggatccgg attatggggc tattgctaac aggtcaacgg ccatcaaggt gtcggttgcc  
 60  
 gtggcaccgc cagccccgga gcctactcgc gagccaccga cgaactccgc tccttccgag  
 120  
 gaaccgtcct cgtcgtcaat cgcaccgggc ccgcccggccc cgacgactgc agtaccacg  
 180  
 actagttcgt cgtcggggccg ctgaccgatg cgcccatcgg cgggctcatc tggctggcgc  
 240  
 tagcgggggc ttcgatgtcc ccataccaca gcgtccgcta aattgccnc c  
 291

<210> 552  
 <211> 67  
 <212> PRT  
 <213> Homo sapiens

<400> 552  
 Xaa Asp Pro Asp Tyr Gly Ala Ile Ala Asn Arg Ser Thr Ala Ile Lys  
 1 5 10 15  
 Val Leu Val Ala Val Ala Pro Pro Ala Pro Glu Pro Thr Arg Glu Pro

```

                20                25                30
Pro Thr Asn Ser Ala Pro Ser Glu Glu Pro Ser Ser Ser Ser Ile Ala
          35                40                45
Pro Val Pro Pro Ala Pro Thr Thr Ala Val Pro Thr Thr Ser Ser Ser
          50                55                60
Ser Gly Arg
65

```

<210> 553  
 <211> 471  
 <212> DNA  
 <213> Homo sapiens

```

<400> 553
ctagccgatg taggattagt aggttttccg agcgtgggta aatctacctt actctcaata
60
gtatctaaag ccaaaccgaa aattggtgca tatcatttca ctacaattaa acctaactta
120
ggtggttgtt ccacaaaaga tcaacgtagt tttgttatgg cagatttacc aggtttaatt
180
gaaggtgcat ctgatggcgt tggattagga catcaatttt taagacatgt agagagaaca
240
aaagttattg ttcacatgat tgatatgagc ggttctgaag gtagagaacc tattgaagat
300
tataaagtca ttaatcaaga attagctgcg tacgagcaac gtttagaaga tagacctcaa
360
atcgtagtag ctaacaagat ggattttacct gaatcacaag ataatttaaa cttgttttaa
420
gaagaaattg gcgaagatgt gccagttatt ccagtttcaa caataacgcg t
471

```

<210> 554  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens

```

<400> 554
Leu Ala Asp Val Gly Leu Val Gly Phe Pro Ser Val Gly Lys Ser Thr
 1                5                10                15
Leu Leu Ser Ile Val Ser Lys Ala Lys Pro Lys Ile Gly Ala Tyr His
          20                25                30
Phe Thr Thr Ile Lys Pro Asn Leu Gly Val Val Ser Thr Lys Asp Gln
          35                40                45
Arg Ser Phe Val Met Ala Asp Leu Pro Gly Leu Ile Glu Gly Ala Ser
          50                55                60
Asp Gly Val Gly Leu Gly His Gln Phe Leu Arg His Val Glu Arg Thr
65                70                75                80
Lys Val Ile Val His Met Ile Asp Met Ser Gly Ser Glu Gly Arg Glu
          85                90                95
Pro Ile Glu Asp Tyr Lys Val Ile Asn Gln Glu Leu Ala Ala Tyr Glu
          100               105               110
Gln Arg Leu Glu Asp Arg Pro Gln Ile Val Val Ala Asn Lys Met Asp
          115               120               125
Leu Pro Glu Ser Gln Asp Asn Leu Asn Leu Phe Lys Glu Glu Ile Gly

```

WO 00/58473

130 135 140  
 Glu Asp Val Pro Val Ile Pro Val Ser Thr Ile Thr Arg  
 145 150 155

<210> 555  
 <211> 300  
 <212> DNA  
 <213> Homo sapiens

<400> 555  
 tctagagatt gagaacaatt atggatacag aaatgggtga ttccgtcaaa tatattcgag  
 60  
 attcgggaatc atgtgaggct cgctgctgg agatcttagc cagaaggccg tccatgatgg  
 120  
 tgcagatctt gcgtggcgac ggcttaatta acgaagacca gagattagtc agattatggc  
 180  
 ttaataaagt acctagaatt gtctgctgc ttctccggct tagtgtgttc gtcgctgcgg  
 240  
 caataggtgc ccgtgcggta tgggcggcgg cttccggtaa tcccgatctt gttcacgcgt  
 300

<210> 556  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

<400> 556  
 Met Asp Thr Glu Met Val Asp Ser Val Lys Tyr Ile Arg Asp Ser Glu  
 1 5 10 15  
 Ser Cys Glu Ala Arg Val Leu Glu Ile Leu Ala Arg Arg Pro Ser Met  
 20 25 30  
 Met Val Gln Ile Leu Arg Gly Asp Gly Leu Ile Asn Glu Asp Gln Arg  
 35 40 45  
 Leu Val Arg Leu Trp Leu Asn Lys Val Pro Arg Ile Val Arg Leu Leu  
 50 55 60  
 Leu Arg Leu Ser Val Phe Val Ala Ala Ala Ile Gly Ala Arg Ala Val  
 65 70 75 80  
 Trp Ala Ala Ala Ser Gly Asn Pro Asp Leu Val His Ala  
 85 90

<210> 557  
 <211> 678  
 <212> DNA  
 <213> Homo sapiens

<400> 557  
 atcttcccgg tttatgagga gaatgcgctg cgtgtcagat ttttcggcga cgaaattgag  
 60  
 gccctcacga cgatgcaccc gctcaccggg gaggtcatca gcgaggacga gcaggtctac  
 120  
 gtgttcccgg ctaccacta tgctgccggc ccggaacgta tggagcgggc catagcgtcc  
 180  
 atccagcagg agctcgagga gcgcctggcc gttctagagc gtgatgggaa actgttggag  
 240

gcccaacggt tacgtatgcg tactacctac gatatcgaga tgatgcagca ggtcgggtgcc  
 300  
 tgtgtggca tcgaaaacta ttcgcggcac atcgacggac gcgctcccgg ctcagccccg  
 360  
 aactgtctgc ttgactactt tccggaagat tttgtgctcg tcattgatga atcccacgtg  
 420  
 accgtcccgc agattggcgg gatgtatgag ggggacatga gccgcaagcg gacattggta  
 480  
 gaacatgggt tccgactgcc cagcgcgatg gacaaccgtc ctctcaaatt cgacgagttc  
 540  
 acccagcgga tcggccagac tgtctacctg tccgccacgc ccggttcgta cgagaccgaa  
 600  
 cgagctcacg gcgtcgtcga acaaattcatt cgctccgacag gtctgggtgga tccggagatt  
 660  
 atcgtcaagc ctacgcgt  
 678

<210> 558  
 <211> 226  
 <212> PRT  
 <213> Homo sapiens

<400> 558  
 Ile Phe Pro Val Tyr Glu Glu Asn Ala Leu Arg Val Glu Phe Phe Gly  
 1 5 10 15  
 Asp Glu Ile Glu Ala Leu Thr Thr Met His Pro Leu Thr Gly Glu Val  
 20 25 30  
 Ile Ser Glu Asp Glu Gln Val Tyr Val Phe Pro Ala Thr His Tyr Val  
 35 40 45  
 Ala Gly Pro Glu Arg Met Glu Arg Ala Ile Ala Ser Ile Gln Gln Glu  
 50 55 60  
 Leu Glu Glu Arg Leu Ala Val Leu Glu Arg Asp Gly Lys Leu Leu Glu  
 65 70 75 80  
 Ala Gln Arg Leu Arg Met Arg Thr Thr Tyr Asp Ile Glu Met Met Gln  
 85 90 95  
 Gln Val Gly Ala Cys Ala Gly Ile Glu Asn Tyr Ser Arg His Ile Asp  
 100 105 110  
 Gly Arg Ala Pro Gly Ser Ala Pro Asn Cys Leu Leu Asp Tyr Phe Pro  
 115 120 125  
 Glu Asp Phe Val Leu Val Ile Asp Glu Ser His Val Thr Val Pro Gln  
 130 135 140  
 Ile Gly Gly Met Tyr Glu Gly Asp Met Ser Arg Lys Arg Thr Leu Val  
 145 150 155 160  
 Glu His Gly Phe Arg Leu Pro Ser Ala Met Asp Asn Arg Pro Leu Lys  
 165 170 175  
 Phe Asp Glu Phe Thr Gln Arg Ile Gly Gln Thr Val Tyr Leu Ser Ala  
 180 185 190  
 Thr Pro Gly Ser Tyr Glu Thr Glu Arg Ala His Gly Val Val Glu Gln  
 195 200 205  
 Ile Ile Arg Pro Thr Gly Leu Val Asp Pro Glu Ile Ile Val Lys Pro  
 210 215 220  
 Thr Arg  
 225

WO 00/58473

<210> 559  
 <211> 335  
 <212> DNA  
 <213> Homo sapiens

<400> 559  
 ggatcctatg gagctcaagt tcaagaaaag aaactgtaaa catggagggt ttgtgataaa  
 60  
 tgggaatgcag tcagagggaa ggaactgccn gcttaaagtg tcctatgctg cgctttccag  
 120  
 agcaatacag tacacagtgg agggcgctac catggagtct ctgggtgaaa gtaggatgg  
 180  
 tatgggtggca ccagccaaac ttctcagggt tcataggcag acagcagctc tggagtggaa  
 240  
 ctaaagtgtg tccaggagct gaagccctta atcagctagg gctcacacag agtcaaggta  
 300  
 ggggtcaaaaa cattcagtct gggacccatct ctaga  
 335

<210> 560  
 <211> 92  
 <212> PRT  
 <213> Homo sapiens

<400> 560  
 Met Glu Cys Ser Gln Arg Glu Gly Thr Ala Xaa Leu Lys Cys Pro Met  
 1 5 10 15  
 Leu Arg Phe Pro Glu Gln Tyr Ser Thr Gln Trp Arg Ala Leu Pro Trp  
 20 25 30  
 Ser Leu Trp Val Lys Val Arg Met Val Trp Trp His Gln Pro Asn Phe  
 35 40 45  
 Ser Gly Phe Ile Gly Arg Gln Gln Leu Trp Ser Gly Thr Lys Val Tyr  
 50 55 60  
 Pro Gly Ala Glu Ala Leu Asn Gln Leu Gly Leu Thr Gln Ser Gln Gly  
 65 70 75 80  
 Arg Val Lys Asn Ile Gln Ser Gly Thr Ile Ser Arg  
 85 90

<210> 561  
 <211> 477  
 <212> DNA  
 <213> Homo sapiens

<400> 561  
 ngcgcgcccc ctccctccgat ggcggcgagg atccagccca agcctctgac ccgcaagccg  
 60  
 atcctgctgc agcggatgga ggggtcccag gaggtggtga atatggccgt gatcgtgccc  
 120  
 aaagaggagg gcgtcatcag cgtctccgag gacaggacag ttcgtgtttg gttaaagaga  
 180  
 gacagtggac agtattggcc aagcgtatac catgcaatgc cttgagtta tattgtcaga  
 240  
 agattataac aagatgactc ctgtgaaaaa ctatcaagcg catcagagca gagtgacgat  
 300

gacccctgttt gtcctggagc tggagtgggt gctgagcaca ggacaggaca agcaatttgc  
360  
ctggcactgc tctgagagtg ggcagcgcct gggagggtat cggaccagtg ctgtggcctc  
420  
aggcctgcaa tttgatgttg aaaccggca tgtgtttatc ggtgaccact caggcca  
477

<210> 562  
<211> 74  
<212> PRT  
<213> Homo sapiens

<400> 562  
Xaa Ala Pro Pro Pro Pro Met Ala Ala Glu Ile Gln Pro Lys Pro Leu  
1 5 10 15  
Thr Arg Lys Pro Ile Leu Leu Gln Arg Met Glu Gly Ser Gln Glu Val  
20 25 30  
Val Asn Met Ala Val Ile Val Pro Lys Glu Glu Gly Val Ile Ser Val  
35 40 45  
Ser Glu Asp Arg Thr Val Arg Val Trp Leu Lys Arg Asp Ser Gly Gln  
50 55 60  
Tyr Trp Pro Ser Val Tyr His Ala Met Pro  
65 70

<210> 563  
<211> 403  
<212> DNA  
<213> Homo sapiens

<400> 563  
ccatggcaga cagggagctg agcggcctgc ggaccaggt gcaccagagc atggtgcccc  
60  
tgctcctaca cctgaaggac caatgcccaa ctgtcgccac gggcaatgcc caccccaaga  
120  
aaaggaaggg aaaaggcctc aaccttggcc agggctggaa cccacaggag gccagggtac  
180  
ggggcagacg gatggcagca gcactgcctg agagttgggg gagctccac ggggcagcaa  
240  
gtggcgggca gagggctctg ccactctgcac tggtttctgt gaccacagtt ggcttgcctg  
300  
ctccccact gcaccactga cgaagcgaga ccctgcctca aaaaaaaaaa caaaaacaaa  
360  
aacaaaaaca aaactcaaac ttcacactgg agatctgtgc aat  
403

<210> 564  
<211> 105  
<212> PRT  
<213> Homo sapiens

<400> 564  
Met Ala Asp Arg Glu Leu Ser Gly Leu Arg Thr Gln Val His Gln Ser  
1 5 10 15  
Met Val Pro Leu Leu Leu His Leu Lys Asp Gln Cys Pro Thr Val Ala

20 25 30  
 Thr Gly Asn Ala His Pro Lys Lys Arg Lys Gly Lys Gly Leu Asn Leu  
 35 40 45  
 Gly Gln Gly Trp Asn Pro Gln Glu Ala Arg Val Arg Gly Arg Arg Met  
 50 55 60  
 Ala Ala Ala Leu Pro Glu Ser Trp Gly Ser Ser His Gly Ala Ala Ser  
 65 70 75 80  
 Gly Gly Gln Arg Val Trp Pro Ser Ala Leu Val Ser Val Thr Thr Val  
 85 90 95  
 Gly Leu Pro Ala Pro Pro Leu His His  
 100 105

<210> 565  
 <211> 311  
 <212> DNA  
 <213> Homo sapiens

<400> 565  
 ncctctccat ggagcagccc catcttctact cttcacctgg ggccaggcct tccacagcag  
 60  
 ccaccaccca gcgaccacag agaggctgcg cggaggacac aggagagagg gagcccacgg  
 120  
 gcacgatctc caccggcttt cccagctccc tgggtcagcc ccacgggacc tctcctcctc  
 180  
 tctccacat ctccaagcca gccttgcata tagtaagagc tgtgatcagg atggaaagag  
 240  
 gcttgggccg cacagacctg gacaatgtcc cagtgagggc tggaggtgct agaagggcac  
 300  
 aggaggcccc n  
 311

<210> 566  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 566  
 Met Glu Gln Pro His Leu His Ser Ser Pro Gly Ala Arg Pro Ser Thr  
 1 5 10 15  
 Ala Ala Thr Thr Gln Arg Pro Gln Arg Gly Cys Ala Glu Asp Thr Gly  
 20 25 30  
 Glu Arg Glu Pro Thr Gly Thr Ile Ser Thr Gly Phe Pro Ser Ser Leu  
 35 40 45  
 Gly Gln Pro His Gly Thr Ser Pro Pro Leu Ser His Ile Ser Lys Pro  
 50 55 60  
 Ala Leu His Ile Val Arg Ala Val Ile Arg Met Glu Arg Gly Leu Gly  
 65 70 75 80  
 Arg Thr Asp Leu Asp Asn Val Pro Val Arg Ala Gly Gly Ala Arg Arg  
 85 90 95  
 Ala Gln Glu Ala Pro  
 100

<210> 567  
 <211> 929

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 567

atcacatcgg tcgctgaacc ccgacgagcc tcacctgtc gaaatattca tccttgagat  
 60  
 cagccacgt gccgtcgacc tctacctcgg tgagggctgc gggcgggtac caacagccga  
 120  
 cctcgtcctc ggctccactc atggcggcaa gttccgctgc cagtccgggg atcgtcgggg  
 180  
 catgggcgat gatgagcagg ttatccacat cgtcgtcgat ttctccgatg cgccgacgca  
 240  
 cggtatcagt gccgcagtaa tagagggctc gcatgaattc gaccggacaa tccagttgga  
 300  
 ggcagtccca ggtctggcgg gtgcgtaggg catcggagac cagagcatgt ccaacattgc  
 360  
 gcagtcctaa acgcgtgccg acctcacggg cctgacggcg cccacgctcg gtgagcggac  
 420  
 gctcccgatc cccgcccgga gcatgggatg cgggctgtgc atgtctcatg aggaacagag  
 480  
 tgtgcatgga tccatcggtg cacttcgcgg tcgccgcggt tctacgatgt tggcatgccg  
 540  
 ttgacggatt tgggcattga tgaggcgcgt acctaccgcc cgaacgtccc tgaacccgat  
 600  
 ggtttcgact ctttttgggc cgagaccctc gatgagtatt ccggcggtcc ccaagatctg  
 660  
 acggcgggtg ctttcgataa ccgtcaggct ctgatagata cctgggattt gtcgtgggtg  
 720  
 gggtatcaca actctcgggt gagcgggtga ttacatgccc cagccgctgt gaacggccca  
 780  
 ttcccccttg tcatcgagta cctcgggtac tcgagttcgc gtggtgtgcc gattggatca  
 840  
 gtcttcgctg ctgctggcta tgcacatata gtcgtcgatc cacgtgggtca ggggtggggc  
 900  
 caccacacct tgacggaaaa ctgtccgga  
 929

&lt;210&gt; 568

&lt;211&gt; 71

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 568

Met Pro Leu Thr Asp Leu Gly Ile Asp Glu Ala Arg Thr Tyr Arg Pro  
 1 5 10 15  
 Asn Val Pro Glu Pro Asp Gly Phe Asp Ser Phe Trp Ala Glu Thr Leu  
 20 25 30  
 Asp Glu Tyr Ser Gly Val Pro Gln Asp Leu Thr Ala Val Pro Phe Asp  
 35 40 45  
 Asn Arg Gln Ala Leu Ile Asp Thr Trp Asp Leu Ser Trp Val Gly Tyr  
 50 55 60  
 His Asn Ser Arg Val Ser Gly  
 65 70



<210> 569  
 <211> 371  
 <212> DNA  
 <213> Homo sapiens

<400> 569  
 ncgcaaactt caacggtgcc atctgccata ttccagggat gccagatttg gatggaaaat  
 60  
 accatattcac tctcgattca gaattcgtag ttgatttagt ggcctttaac aaaacgctac  
 120  
 ctgtcgatta cttaatgggtc gaaggaacgg aacttgtgta ttcaaactatg gaagaactac  
 180  
 ctgaatgccc atattatcca aaagatcaaa agccaatcgt gattgggaaa aacacaaaac  
 240  
 tcaaggaaca accaacagcc gttgctctct tctcggatgt tgataaacgg ccagagatta  
 300  
 aatcaaaaat cttagaccgc tatgataatg atattgaaat ccgtacttgg ggcggtactt  
 360  
 cccatgtcta n  
 371

<210> 570  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 570  
 Met Pro Asp Leu Asp Gly Lys Tyr His Ile Thr Leu Asp Ser Glu Phe  
 1 5 10 15  
 Val Leu Asp Leu Val Ala Phe Asn Lys Thr Leu Pro Val Asp Tyr Leu  
 20 25 30  
 Met Val Glu Gly Thr Glu Leu Val Tyr Ser Asn Met Glu Glu Leu Pro  
 35 40 45  
 Glu Cys Pro Tyr Tyr Pro Lys Asp Gln Lys Pro Ile Val Ile Gly Lys  
 50 55 60  
 Asn Thr Lys Leu Lys Glu Gln Pro Thr Ala Val Ala Leu Phe Ser Asp  
 65 70 75 80  
 Val Asp Lys Arg Pro Glu Ile Lys Ser Lys Ile Leu Asp Arg Tyr Asp  
 85 90 95  
 Asn Asp Ile Glu Ile Arg Thr Trp Gly Gly Thr Ser His Val Xaa  
 100 105 110

<210> 571  
 <211> 407  
 <212> DNA  
 <213> Homo sapiens

<400> 571  
 nacgcgtatc ttcgctgggtc cacaccagac gtggcattaa acgacgtcac aagaacgaca  
 60  
 ccgggccttg acgggcccac gcacgaagag gccaaagacac tgaccgagac tactgtttcc  
 120  
 gttcccacct ccttcgccga cctcggcgctc cgagaagata tctgccaggc gctggaaggg  
 180

gtgggaattg tctccccgtt cccgatccag gccatgtcga tcccgaattgc cgtcgagggc  
 240  
 acggatctta ttgggcaggc gcgtactggc actggcaaaa cactcgcctt cggcatcacc  
 300  
 atcttgcagc gcatcaccct gcccgggtgac gaagggtggg aagaactcac caccaaaggc  
 360  
 aagcccccaa gcactcgtga tgtgccccta cccgggagct aggtcgg  
 407

<210> 572  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 572  
 Leu Thr Glu Thr Thr Val Ser Val Pro Thr Ser Phe Ala Asp Leu Gly  
 1 5 10 15  
 Val Arg Glu Asp Ile Cys Gln Ala Leu Glu Gly Val Gly Ile Val Ser  
 20 25 30  
 Pro Phe Pro Ile Gln Ala Met Ser Ile Pro Ile Ala Val Glu Gly Thr  
 35 40 45  
 Asp Leu Ile Gly Gln Ala Arg Thr Gly Thr Gly Lys Thr Leu Ala Phe  
 50 55 60  
 Gly Ile Thr Ile Leu Gln Arg Ile Thr Leu Pro Gly Asp Glu Gly Trp  
 65 70 75 80  
 Glu Glu Leu Thr Thr Lys Gly Lys Pro Pro Ser Thr Arg Asp Val Pro  
 85 90 95  
 Leu Pro Gly Ser  
 100

<210> 573  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 573  
 acgcgtctac cgtaggatcc atgaccttcc gcaagaccga ccaccacaag aacgccattg  
 60  
 actacgaggt cgccggacta atgtggctcg ctgctgcccg gccagatggg gccggcatcg  
 120  
 tcgaggtgct cgaccacggc aagggatggc tcaccgaacc cgaattgtcc actgggcacc  
 180  
 ccacccgcga ggcagccgag gactttggcc gccgactggc tcacacccac gcagccgggg  
 240  
 cctcacacct gggggctgca cctgacgggt ttgttcccga cgatgggtat atcggccgtg  
 300  
 ctcccctgcc actgccgtcc gaaccaatct cctcctgggg agagttttac gctcagtgcc  
 360  
 gcatcgaacc atatatggac agtctcgacg ctg  
 393

<210> 574  
 <211> 124  
 <212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 574

```

Met Thr Phe Arg Lys Thr Asp His His Lys Asn Ala Ile Asp Tyr Glu
 1           5           10           15
Val Ala Gly Leu Met Trp Leu Ala Ala Ala Arg Pro Asp Gly Ala Gly
      20           25           30
Ile Val Glu Val Leu Asp His Gly Lys Gly Trp Leu Thr Glu Pro Glu
      35           40           45
Leu Ser Thr Gly His Pro Thr Arg Glu Ala Ala Glu Asp Phe Gly Arg
      50           55           60
Arg Leu Ala His Thr His Ala Ala Gly Ala Ser His Leu Gly Ala Ala
65           70           75           80
Pro Asp Gly Phe Val Pro Asp Asp Gly Tyr Ile Gly Arg Ala Pro Leu
      85           90           95
Pro Leu Pro Ser Glu Pro Ile Ser Ser Trp Gly Glu Phe Tyr Ala Gln
      100          105          110
Cys Arg Ile Glu Pro Tyr Met Asp Ser Leu Asp Ala
      115          120

```

&lt;210&gt; 575

&lt;211&gt; 372

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 575

```

nntatccatg cagacatggg accagggctct ctgagggcag gaagcaaagt gggtagggg
60
gatgggacaa gatgccctgg tgctaaggcc tctggagctg gagctgggta tagggatgat
120
accaggcacc ctgagtcact cgcacctcac aatggggccg cttctgggag ccagtgggct
180
tatggggctg gcaatgtgct gggttatgag gatggatcag aacttccagg gcctcaggga
240
actgggggtca gaacagccta tggagaaagg tcaaggggcc ttgggcctag gagtacaggg
300
ccaggggggtg aggcaggctt tagagatggt tcaggaggcc tccaaggaat gggatcagca
360
gatgggcccgt gt
372

```

&lt;210&gt; 576

&lt;211&gt; 124

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 576

```

Xaa Ile His Ala Asp Met Gly Pro Gly Ser Leu Arg Ala Gly Ser Lys
 1           5           10           15
Val Gly Glu Gly Asp Gly Thr Arg Cys Pro Gly Ala Lys Ala Ser Gly
      20           25           30
Ala Gly Ala Gly Tyr Arg Asp Asp Thr Arg His Pro Glu Ser Leu Ala
      35           40           45
Pro His Asn Gly Ala Ala Ser Gly Ser Gln Trp Ala Tyr Gly Ala Gly

```

```

      50      55      60
Asn Val Leu Gly Tyr Glu Asp Gly Ser Glu Leu Pro Gly Pro Gln Gly
65      70      75      80
Thr Gly Val Arg Thr Ala Tyr Gly Glu Arg Ser Arg Gly Leu Gly Pro
      85      90      95
Arg Ser Thr Gly Pro Gly Gly Glu Ala Gly Phe Arg Asp Gly Ser Gly
      100      105      110
Gly Leu Gln Gly Met Gly Ser Ala Asp Gly Pro Gly
      115      120

```

<210> 577  
 <211> 432  
 <212> DNA  
 <213> Homo sapiens

```

<400> 577
nagcgcaatg tcatgatgtc ggatttgtea atgtcggatt tctcatccca gccatcacc
60
ccgcagcgcc gggcgcgat gaccagcggc cagcgccgtg aacagctcat cagcgtggcc
120
cgtcgcctct tcgcagacaa tggcatggca gggacctccg tcgaggagat cgccgctacc
180
gcgggagtct ccaaaccggt catctacgag catttcgggt ccaaggatgg gctgtacgcc
240
gtcgtcgtag accgcgaggt acgccaccta caagattccc tcaacgccgc catgaccgcg
300
ccaaagcaag gcccgaaacg caccctggag tcagcggtag tggccctgct ggactacatc
360
gacgaccgtc cagacggttt tcggatcatc tcgcgagact cctcggtcgg ttcagccacc
420
ggttcgtacg cg
432

```

<210> 578  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

```

<400> 578
Met Thr Ser Gly Gln Arg Arg Glu Gln Leu Ile Ser Val Ala Arg Arg
1      5      10      15
Leu Phe Ala Asp Asn Gly Met Ala Gly Thr Ser Val Glu Glu Ile Ala
      20      25      30
Ala Thr Ala Gly Val Ser Lys Pro Val Ile Tyr Glu His Phe Gly Ser
      35      40      45
Lys Asp Gly Leu Tyr Ala Val Val Val Asp Arg Glu Val Arg His Leu
50      55      60
Gln Asp Ser Leu Asn Ala Ala Met Thr Arg Pro Lys Gln Gly Pro Lys
65      70      75      80
Arg Thr Leu Glu Ser Ala Val Leu Ala Leu Leu Asp Tyr Ile Asp Asp
      85      90      95
Arg Pro Asp Gly Phe Arg Ile Ile Ser Arg Asp Ser Ser Val Gly Ser
      100      105      110
Ala Thr Gly Ser Tyr Ala

```

115

<210> 579  
<211> 320  
<212> DNA  
<213> Homo sapiens

<400> 579  
ggccccaac actccgacct cagctggtcc agcatgctgg gcaccgtgct gctgctggcc  
60  
ctgctcccag ggatcaccac cttaccacagc gggccacctg ctcccccggt ccccgcgggc  
120  
cccggcccct ggctgcgag acccctcttc agcctgaagc tgtccgacac agaggacgtc  
180  
tttctcgcc gcgcgggggc gctcgaggtc ccggccgaca gccgcgtggt cgtgcaggcg  
240  
gccttgggcc gtccctcccc gcgctggggc ctggccctgc accgctgctc agtgacgccc  
300  
tcctcacgcc cggccccggg  
320

<210> 580  
<211> 95  
<212> PRT  
<213> Homo sapiens

<400> 580  
Met Leu Gly Thr Val Leu Leu Leu Ala Leu Leu Pro Gly Ile Thr Thr  
1 5 10 15  
Leu Pro Ser Gly Pro Pro Ala Pro Pro Phe Pro Ala Ala Pro Gly Pro  
20 25 30  
Trp Leu Arg Arg Pro Leu Phe Ser Leu Lys Leu Ser Asp Thr Glu Asp  
35 40 45  
Val Phe Pro Arg Arg Ala Gly Pro Leu Glu Val Pro Ala Asp Ser Arg  
50 55 60  
Val Phe Val Gln Ala Ala Leu Ala Arg Pro Ser Pro Arg Trp Gly Leu  
65 70 75 80  
Ala Leu His Arg Cys Ser Val Thr Pro Ser Ser Arg Pro Ala Pro  
85 90 95

<210> 581  
<211> 419  
<212> DNA  
<213> Homo sapiens

<400> 581  
nacgacggca accattcgct gtggaaggag ctgaacggcc agctcgacgt gcagtttttc  
60  
cacgtcggca tgggcttcaa gacgccagta cgcattgcaca gcgtcgaccc caagacccgc  
120  
gaagcccgcg aggtgcattt ccgcccgtcg ctgttcaact atgccaagac cacggtggac  
180  
accaagcagc tgaccggcga cctgggtttc tccggtttca agctgttcaa ggcgcccga  
240

ctggatcgcc atgacgtgct gtcgtttctc ggcgccagtt acttccgtgc ggtggacgca  
300  
acccgccagt acggcctctc cgcacgcggc ctggcgattg atacctacgc gaaaaaacgc  
360  
gaggaattcc ccgacttcac gcagttctgg ttcgaaaccc cgagcaagga cccacgcgt  
419

<210> 582  
<211> 139  
<212> PRT  
<213> Homo sapiens

<400> 582  
Xaa Asp Gly Asn His Ser Leu Trp Lys Glu Leu Asn Gly Gln Leu Asp  
1 5 10 15  
Val Gln Phe Phe His Val Gly Met Gly Phe Lys Thr Pro Val Arg Met  
20 25 30  
His Ser Val Asp Pro Lys Thr Arg Glu Ala Arg Glu Val His Phe Arg  
35 40 45  
Pro Ser Leu Phe Asn Tyr Ala Lys Thr Thr Val Asp Thr Lys Gln Leu  
50 55 60  
Thr Gly Asp Leu Gly Phe Ser Gly Phe Lys Leu Phe Lys Ala Pro Glu  
65 70 75 80  
Leu Asp Arg His Asp Val Leu Ser Phe Leu Gly Ala Ser Tyr Phe Arg  
85 90 95  
Ala Val Asp Ala Thr Arg Gln Tyr Gly Leu Ser Ala Arg Gly Leu Ala  
100 105 110  
Ile Asp Thr Tyr Ala Lys Lys Arg Glu Glu Phe Pro Asp Phe Thr Gln  
115 120 125  
Phe Trp Phe Glu Thr Pro Ser Lys Asp Pro Arg  
130 135

<210> 583  
<211> 407  
<212> DNA  
<213> Homo sapiens

<400> 583  
cttttgatca atgctgatgg cacgaagcta tcgaaaaggt cgggtgatgt ccgcgtagct  
60  
gattatatgg agcaggggatg ggagccggag acgctggtga acctagttgc cctcacgggc  
120  
tatagctatg cgaatttgga gcatgctgat catgatgtca agacgatgaa cgaactcatc  
180  
cgtgactttg agcttactcg tatctcccat acgcgagcca cactcccat ggacaagctt  
240  
gtgtttttga acaagcatca cttgacaaat aagctggcgc tcgccacgac gtgtgagcag  
300  
accaaacaag acctattgtc gcgtatccgg ccgatcacta cctcgtggta cggcgattat  
360  
tcagatgatt atatcctgcg cgtcgttaaca ctgggacccc aacgcgt  
407

<210> 584

<211> 135  
 <212> PRT  
 <213> Homo sapiens

<400> 584  
 Leu Leu Ile Asn Ala Asp Gly Thr Lys Leu Ser Lys Arg Ser Gly Asp  
 1 5 10 15  
 Val Arg Val Ala Asp Tyr Met Glu Gln Gly Trp Glu Pro Glu Thr Leu  
 20 25 30  
 Val Asn Leu Val Ala Leu Thr Gly Tyr Ser Tyr Ala Asn Leu Glu His  
 35 40 45  
 Ala Asp His Asp Val Lys Thr Met Asn Glu Leu Ile Arg Asp Phe Glu  
 50 55 60  
 Leu Thr Arg Ile Ser His Thr Arg Ala Thr Leu Pro Met Asp Lys Leu  
 65 70 75 80  
 Val Phe Leu Asn Lys His His Leu Thr Asn Lys Leu Ala Leu Ala Thr  
 85 90 95  
 Thr Cys Glu Gln Thr Lys Gln Asp Leu Leu Ser Arg Ile Arg Pro Ile  
 100 105 110  
 Thr Thr Ser Trp Tyr Gly Asp Tyr Ser Asp Asp Tyr Ile Leu Arg Val  
 115 120 125  
 Val Thr Leu Gly Pro Gln Arg  
 130 135

<210> 585  
 <211> 502  
 <212> DNA  
 <213> Homo sapiens

<400> 585  
 nnacgcgtcc tcgctggata tgaggctgtg aagaggggaac gctgcgtcat tgatctggac  
 60  
 gatattttgt tgtgcgcggt gggattgttg gttcagcacc gtgacatcac tgaggagatt  
 120  
 cgggctcggg accgacattt cgttgtcgac gaataccagg acgtttctcc gctgcagcat  
 180  
 aggttgcttg aactgtgggt tggcgatcga aatgatgtat gcgtcgtggg agatccgcac  
 240  
 caggccattc actcttatgc aggcgcacga gctgactacc tcctcgactt cgttgccgat  
 300  
 catcctggcg ctaaacgcat cgatttggtt cgcaactacc gctccactcc cgagatcggt  
 360  
 cagttggcca atgaagttct tgtcaaccgt atgactccag aggaggcttt ggaacatggc  
 420  
 aggggagtca cattgggtttc gcgggggtcga tccgggtccc agcccatcta tcaggctctc  
 480  
 ggggacgatg cctccgaagc tt  
 502

<210> 586  
 <211> 167  
 <212> PRT  
 <213> Homo sapiens

<400> 586  
 Xaa Arg Val Leu Ala Gly Tyr Glu Ala Val Lys Arg Glu Arg Cys Val  
 1 5 10 15  
 Ile Asp Leu Asp Asp Ile Leu Leu Cys Ala Val Gly Leu Leu Val Gln  
 20 25 30  
 His Arg Asp Ile Thr Glu Glu Ile Arg Ala Arg Tyr Arg His Phe Val  
 35 40 45  
 Val Asp Glu Tyr Gln Asp Val Ser Pro Leu Gln His Arg Leu Leu Glu  
 50 55 60  
 Leu Trp Phe Gly Asp Arg Asn Asp Val Cys Val Val Gly Asp Pro His  
 65 70 75 80  
 Gln Ala Ile His Ser Tyr Ala Gly Ala Arg Ala Asp Tyr Leu Leu Asp  
 85 90 95  
 Phe Val Ala Asp His Pro Gly Ala Lys Arg Ile Asp Leu Val Arg Asn  
 100 105 110  
 Tyr Arg Ser Thr Pro Glu Ile Val Gln Leu Ala Asn Glu Val Leu Val  
 115 120 125  
 Asn Arg Met Thr Pro Glu Glu Ala Leu Glu His Gly Arg Gly Val Thr  
 130 135 140  
 Leu Val Ser Arg Gly Arg Ser Gly Pro Glu Pro Ile Tyr Gln Ala Leu  
 145 150 155 160  
 Gly Asp Asp Ala Ser Glu Ala  
 165

<210> 587  
 <211> 746  
 <212> DNA  
 <213> Homo sapiens

<400> 587  
 gcgtcctgcc tcgagggcct cgggagcttc cgctgcctct gttggccagg ctacagcggc  
 60  
 gagctgtgcg aggtggacga ggacgagtgt gcatcgagcc cctgccagca tgggggcccga  
 120  
 tgccctgcagc gctctgaccc ggccctctac ggggggtgtcc aggccgcctt ccctggcgcc  
 180  
 ttcagcttcc gccatgctgc gggtttctctg tgccactgcc ctcttggtt tgagggagcc  
 240  
 gactgcggtg tggaggtgga cgagtgtgcc tcacggccat gcctcaatgg aggccactgc  
 300  
 caggacctgc ccaatggctt ccagtgtcac tgcccagatg gctacgcagg gccgacatgt  
 360  
 gaggaagatg tggatgaatg cctgtccgat ccctgcctgc acggcggaac ctgcagtgc  
 420  
 actgtggcag gctatatctg caggtgcccga gagacctggg gtgggcccga ctgttctgtg  
 480  
 cagctcactg gctgccaggg ccacacctgc ccgctggctg ccacctgcat ccctatcttc  
 540  
 gagtctgggg tccacagtta cgtctgccac tgcccacctg gtacctatgg accgttctgt  
 600  
 ggccagaata ccaccttctc tgtgatggct gggagcccca ttcaggcatc agtgccagct  
 660  
 ggtggccccc tgggtctggc actgaggttt cgcaccacac tgcccgtggg gaccttgccc  
 720



actcgcaatg acaccaagga aagctt  
746

<210> 588  
<211> 248  
<212> PRT  
<213> Homo sapiens

<400> 588  
Ala Ser Cys Leu Glu Gly Leu Gly Ser Phe Arg Cys Leu Cys Trp Pro  
1 5 10 15  
Gly Tyr Ser Gly Glu Leu Cys Glu Val Asp Glu Asp Glu Cys Ala Ser  
20 25 30  
Ser Pro Cys Gln His Gly Gly Arg Cys Leu Gln Arg Ser Asp Pro Ala  
35 40 45  
Leu Tyr Gly Gly Val Gln Ala Ala Phe Pro Gly Ala Phe Ser Phe Arg  
50 55 60  
His Ala Ala Gly Phe Leu Cys His Cys Pro Pro Gly Phe Glu Gly Ala  
65 70 75 80  
Asp Cys Gly Val Glu Val Asp Glu Cys Ala Ser Arg Pro Cys Leu Asn  
85 90 95  
Gly Gly His Cys Gln Asp Leu Pro Asn Gly Phe Gln Cys His Cys Pro  
100 105 110  
Asp Gly Tyr Ala Gly Pro Thr Cys Glu Glu Asp Val Asp Glu Cys Leu  
115 120 125  
Ser Asp Pro Cys Leu His Gly Gly Thr Cys Ser Asp Thr Val Ala Gly  
130 135 140  
Tyr Ile Cys Arg Cys Pro Glu Thr Trp Gly Gly Arg Asp Cys Ser Val  
145 150 155 160  
Gln Leu Thr Gly Cys Gln Gly His Thr Cys Pro Leu Ala Ala Thr Cys  
165 170 175  
Ile Pro Ile Phe Glu Ser Gly Val His Ser Tyr Val Cys His Cys Pro  
180 185 190  
Pro Gly Thr His Gly Pro Phe Cys Gly Gln Asn Thr Thr Phe Ser Val  
195 200 205  
Met Ala Gly Ser Pro Ile Gln Ala Ser Val Pro Ala Gly Gly Pro Leu  
210 215 220  
Gly Leu Ala Leu Arg Phe Arg Thr Thr Leu Pro Ala Gly Thr Leu Ala  
225 230 235 240  
Thr Arg Asn Asp Thr Lys Glu Ser  
245

<210> 589  
<211> 381  
<212> DNA  
<213> Homo sapiens

<400> 589  
atctcacaag tacaattaca gtctcaagaa ctgagctatc agcaaaagca aggtcttcag  
60  
ccagtacctc tgcaagccac tatgagtgct gcaactggta tccagccatc gcctgtaaat  
120  
gtgggttggtg taacttcagc tttagggtcag cagccttcca tttccagttt ggctcaaccc  
180

cagctaccat attctcaggc ggctcctcca gtgcaaactc cccttccagg ggcaccacca  
 240  
 ccccaacagt tacagtatgg acaacagcaa ccaatggttt ctacacagat ggccccaggc  
 300  
 catgtcaaat cagtgactca aaatcctgct tcagagtatg tacaacagca gccaatcttt  
 360  
 caaacagcaa tgtcctccgg a  
 381

<210> 590  
 <211> 127  
 <212> PRT  
 <213> Homo sapiens

<400> 590  
 Ile Ser Gln Val Gln Leu Gln Ser Gln Glu Leu Ser Tyr Gln Gln Lys  
 1 5 10 15  
 Gln Gly Leu Gln Pro Val Pro Leu Gln Ala Thr Met Ser Ala Ala Thr  
 20 25 30  
 Gly Ile Gln Pro Ser Pro Val Asn Val Val Gly Val Thr Ser Ala Leu  
 35 40 45  
 Gly Gln Gln Pro Ser Ile Ser Ser Leu Ala Gln Pro Gln Leu Pro Tyr  
 50 55 60  
 Ser Gln Ala Ala Pro Pro Val Gln Thr Pro Leu Pro Gly Ala Pro Pro  
 65 70 75 80  
 Pro Gln Gln Leu Gln Tyr Gly Gln Gln Gln Pro Met Val Ser Thr Gln  
 85 90 95  
 Met Ala Pro Gly His Val Lys Ser Val Thr Gln Asn Pro Ala Ser Glu  
 100 105 110  
 Tyr Val Gln Gln Gln Pro Ile Leu Gln Thr Ala Met Ser Ser Gly  
 115 120 125

<210> 591  
 <211> 684  
 <212> DNA  
 <213> Homo sapiens

<400> 591  
 tcgaccatgg atcatctgcg ccacggcatc cacctgcggtg gttatgcgca gaagaacccg  
 60  
 aagcaggaat acaagcgcgga gtcgttcacc ctgttctccg agctgctgga ctcgatcaag  
 120  
 cgcgattcga ttcgggtcct cttccacgtc cagggggccgg gggaaaaatc cgtatcgaaa  
 180  
 naaaaagcgc gcctgcggtca ggaagccgaa gccctggccc agcgcgatgca gttcgagcac  
 240  
 gctgaagccc caggcctgga cgcgcgggaa atcctcggtg aagaagtcga tgtcgccctg  
 300  
 gccaccgccc cggtacgcaa cgagcagaag ctggggccgta acgaactgtg ctactgcggt  
 360  
 tcgggcaaga agtacaagca ctgccacggt cagatcagct aaggtcttta ccggatactg  
 420  
 aaatacctgc gccgcgaccg gcattagccg tcgcggcggtt tttccatttg aaacactgcc  
 480

cttgtgacgg cagtgcagat atcacattaa aaggagggca ttcattgggtg ttgggttctgg  
 540  
 gtccttgccc tacgttgacac ccggttgccc gttttgaact cggatcggc tcggccggta  
 600  
 tcaagcggcc tgggcgcaag gatgtggtgg cgatgcgctg cggcgaaggt tccacgggtgg  
 660  
 cgggggtggt taccctcaac gcgt  
 684

<210> 592  
 <211> 133  
 <212> PRT  
 <213> Homo sapiens

<400> 592  
 Ser Thr Met Asp His Leu Arg His Gly Ile His Leu Arg Gly Tyr Ala  
 1 5 10 15  
 Gln Lys Asn Pro Lys Gln Glu Tyr Lys Arg Glu Ser Phe Thr Leu Phe  
 20 25 30  
 Ser Glu Leu Leu Asp Ser Ile Lys Arg Asp Ser Ile Arg Val Leu Phe  
 35 40 45  
 His Val Gln Gly Pro Gly Glu Lys Ser Val Ser Lys Xaa Lys Ala Arg  
 50 55 60  
 Leu Arg Gln Glu Ala Glu Ala Leu Ala Gln Arg Met Gln Phe Glu His  
 65 70 75 80  
 Ala Glu Ala Pro Gly Leu Asp Ala Pro Glu Ile Leu Gly Glu Glu Val  
 85 90 95  
 Asp Val Ala Leu Ala Thr Ala Pro Val Arg Asn Glu Gln Lys Leu Gly  
 100 105 110  
 Arg Asn Glu Leu Cys Tyr Cys Gly Ser Gly Lys Lys Tyr Lys His Cys  
 115 120 125  
 His Gly Gln Ile Ser  
 130

<210> 593  
 <211> 615  
 <212> DNA  
 <213> Homo sapiens

<400> 593  
 nnacgcgtgc agaccgcgcg gagtctcgct ccggtgcgga tagcgtagg ctcccaaacc  
 60  
 tgtgaaaccg tcacggtaga gcgtcgtggc gggctaccac ttagagcggc ccgattcacc  
 120  
 gataccatcc ccgcgccgct aggccagcca cgatgggtcga cggccaccat ccagacccca  
 180  
 gtcataccta ctacacgtgg tcgattcgtg atcggtcccg tcatgatgcg caccatcgac  
 240  
 ccgtttggca tggcccgcca tcacaccgat ctcgggtcagg ttgccgaagt cattgtcacg  
 300  
 ccaaggatcg tcgatttggg cgcctccggg gagctcgggg gtcagggatt cgacacaagg  
 360  
 tcctcagcga tccatgccgg acgacgtggt cccgacgatg ccatggtgcg cgattggcac  
 420

accggagact cgggtgcgacg cattcactgg cgctccaccg ctcaccgcgg ggacctcatg  
480  
gtccgatgcg aggagcaggc ctggaaccca tccgtcgtca tcgtgttgga ttctcgsggt  
540  
cggcgtcacg ctggaactgg ccccgacgca tcctttgaat gggccgtcaa cgcggtggca  
600  
tccatctcga cgcgt  
615

<210> 594  
<211> 205  
<212> PRT  
<213> Homo sapiens

<400> 594  
Xaa Arg Val Gln Thr Ala Arg Ser Leu Ala Pro Val Arg Ile Ala Leu  
1 5 10 15  
Gly Ser Gln Thr Cys Glu Thr Val Thr Val Glu Arg Arg Gly Gly Leu  
20 25 30  
Pro Leu Arg Ala Ala Arg Phe Thr Asp Thr Ile Pro Ala Pro Leu Gly  
35 40 45  
Gln Pro Arg Trp Ser Thr Ala Thr Ile Gln Thr Pro Val Ile Pro Thr  
50 55 60  
Thr Arg Gly Arg Phe Val Ile Gly Pro Val Met Met Arg Thr Ile Asp  
65 70 75 80  
Pro Phe Gly Met Ala Arg His His Thr Asp Leu Gly Gln Val Ala Glu  
85 90 95  
Val Ile Val Thr Pro Arg Ile Val Asp Leu Gly Ala Ser Gly Glu Leu  
100 105 110  
Gly Gly Gln Gly Phe Asp Thr Arg Ser Ser Ala Ile His Ala Gly Arg  
115 120 125  
Arg Gly Pro Asp Asp Ala Met Val Arg Asp Trp His Thr Gly Asp Ser  
130 135 140  
Val Arg Arg Ile His Trp Arg Ser Thr Ala His Arg Gly Asp Leu Met  
145 150 155 160  
Val Arg Cys Glu Glu Gln Ala Trp Asn Pro Ser Val Val Ile Val Leu  
165 170 175  
Asp Ser Arg Ala Arg Arg His Ala Gly Thr Gly Pro Asp Ala Ser Phe  
180 185 190  
Glu Trp Ala Val Asn Ala Val Ala Ser Ile Ser Thr Arg  
195 200 205

<210> 595  
<211> 303  
<212> DNA  
<213> Homo sapiens

<400> 595  
acgcgtccta gccgcagtga atgttgctga accccggtga cctcacagtg gaggggcggc  
60  
cccatggggc catcggaccg cgccgcgcgg gggcgttcgc cagggcctcc gcagaagccc  
120  
gcctgtgccc gcaaccgccc cgaaattctc tccttggcac cgtgtccgct ttacggagcc  
180

cggagcaagg ctcagaaaaa tgtcccagcc aaaaacatgg tacatgcctg tcatcaggca  
 240  
 agtcttcaaa gagcggctgg gaccaggggc cgagggacct cgtttagagg cggcttaggg  
 300  
 gga  
 303

<210> 596  
 <211> 88  
 <212> PRT  
 <213> Homo sapiens

<400> 596  
 Met Leu Leu Asn Pro Gly Asp Leu Thr Val Glu Gly Arg Pro His Gly  
 1 5 10 15  
 Ala Ile Gly Pro Arg Arg Ala Gly Ala Phe Ala Arg Ala Ser Ala Glu  
 20 25 30  
 Ala Arg Leu Cys Pro Gln Pro Pro Arg Asn Ser Leu Pro Gly Thr Val  
 35 40 45  
 Ser Ala Leu Arg Ser Pro Glu Gln Gly Ser Glu Lys Cys Pro Ser Gln  
 50 55 60  
 Lys His Gly Thr Cys Leu Ser Ser Gly Lys Ser Ser Lys Ser Gly Trp  
 65 70 75 80  
 Asp Gln Gly Pro Arg Asp Leu Val  
 85

<210> 597  
 <211> 2709  
 <212> DNA  
 <213> Homo sapiens

<400> 597  
 nacgcgtgca cgcagtgcg caaagccttc cgctggaagt ccaacttta tttgcacaag  
 60  
 aagaaccaca tgggtggagaa gacctacgaa tgtaaagaat gcgggaaatc ctttggcgat  
 120  
 ctcgtgtccc ggaggaaaca catgaggatt cacatcgtca agaaaccctg ggaatgtcgg  
 180  
 cagtgcggga agaccttcg aaaccagtcc atccttaaga ctcacatgaa ctctcacact  
 240  
 ggagagaaac catacgggtg cgatctctgc gggaaagctt tcagcgcgag ttcaaacctc  
 300  
 accgcacaca ggaagataca cacgcaagag agacgctacg aatgcgccgc ctgcgggaaa  
 360  
 gtcttcggtg actatttatc ccggcggagg cacatgagcg ttcaccttgt aaagaaacga  
 420  
 gttgagtgtg ggcattgtgg caaggccttc aggaaccagt caacgctgaa gacgcacatg  
 480  
 cgaagccaca cgggggagaa accgtacgaa tgcgatcact gtgggaaggc cttcagcata  
 540  
 ggctccaacc tgaatgtgca caggcggatc cacaccgggg agaagcccta cgaatgcctt  
 600  
 gtctgcggga aagccttcag cgaccactca tccctcagga gccacgtgaa aactcaccgg  
 660

ggagagaagc tcttttngtg tcatccgtgt ggaaaaggct ccagtgagcg cgccttgctt  
720  
tagagacaca ggatgattca gaccggaaac agacctcgtg ggtgtaagag gaagcctctg  
780  
tgagctcgca ccttactggg tgcaaaagaa tccacggaac ttgggagaag tccagttcct  
840  
gtaaaaactg ggaagacgag gcgttctcat cccataggag gtttgtgaga actcacgccg  
900  
ggggtgaaaa tgtacgtctg tagcatggag aagccttcag gtacattcag ctcttaacaa  
960  
acacaggaag acttaatggc agcttggcat ttaatgtcaa aatccaagcc gtggcattta  
1020  
atgtcaaaat gacttcagac cacttctagc cttctgggcc catgagtaat aatgagcaca  
1080  
ctagggagca tctctgtaaa cacagtggct ggggaaaccc ttcctagtct cacttgattc  
1140  
ctcatgacgg aaatcacact aaagagagaa atcagtgaag taaggaacgt ggaaggctcat  
1200  
gaatgggccg caaaccacgg ccagctgctt gtctttgtat ggcttgccag ctaacaatag  
1260  
tggttccatc ttttaaggaag aagaatgttt gatggagaaa atttgtggcc aatgaagtct  
1320  
gaaatacttc ctgtcatctg cccctttcca gaaaaacttg gccgaccctt ggtctacagc  
1380  
acgggttctc agtcgggcga cgatttggct gtctaggcgt catttggcaa tgtctagaga  
1440  
catttttggg agttagaatg gggggaagat actcctgact tgtaataaga agacatcaga  
1500  
gatgctgcta agtcggctcc agcacacagg agccccccac aacgaagagt tagtgcccc  
1560  
aaacgtcact gttgctgagg ttgaaaataa tcatgcagtc attcctcaat tactgcctgc  
1620  
agcaattcct ccatttttat gaatcttgtg agcacttacg ctaggagaaa tttcttttac  
1680  
aaaactttta aaatacaatt agtgctgata attcctatgt ggaaatgatt ccagccatgg  
1740  
tcccctcact tgagcatgtg aatattctca cggagagaag ccccagcgag attttccggt  
1800  
gaatacggga ttgcacttac tctttcatca cggaacaga cccccgaga gaagccccaa  
1860  
cgagattttc cggatgaatac gggactgcac gtactctctc atcatgaaaa cagagccccg  
1920  
ttcataaatt tttcatcttt atttttaagg ttatactcct ctaaataacc cttaagcctc  
1980  
atcaagaaag gtttgtttat agtattttta ctatagcttc atccttgata acgtccta  
2040  
ttccttctgg acaacctcct tgaccaatgg catattgaga tctatgtgac atgaggatat  
2100  
ttctcagtac cactttgtta ctggtacctg atgcacacgg attgcgacca gagcatgatg  
2160  
cctccatcaa gtggtaatat gtttgcagcc tgctgtccag ccaagagtga cagatacttc  
2220  
tagtgacttc cccggtatcc actctcatct tcttccaata tcaagagaat ccaggttctg  
2280

tcagattagt aaggtgtgct aatctaaatt ttaaaaaatc tcttacaggt tttcttgag  
 2340  
 ctggtaccat ccatgtctca cagccctggc cactgacaga tcagcagatg tcaccacgtg  
 2400  
 ggcttctgag aaagctcttg aatggggatc gttcttaaac atgaattcct ccctgtatgt  
 2460  
 tttgttcttt gctttacttt tcaccttgca aagagatcca gtacctagta ttggaagatc  
 2520  
 caccttaacg accgtgcata tgaaaaccac agtctaagga agtgactgca gaaagctcac  
 2580  
 agcgaccctg gcctcccttg tggcctcttt gagtgtctgc agcagccctg gacttccaga  
 2640  
 cttctatcac atgagaaaaa ataaaactga ttattggttt aagctgcaaa aaaaaaaaaa  
 2700  
 aaaaaaaaaa  
 2709

<210> 598  
 <211> 240  
 <212> PRT  
 <213> Homo sapiens

<400> 598  
 Xaa Ala Cys Thr Gln Cys Gly Lys Ala Phe Arg Trp Lys Ser Asn Phe  
 1 5 10 15  
 Asn Leu His Lys Lys Asn His Met Val Glu Lys Thr Tyr Glu Cys Lys  
 20 25 30  
 Glu Cys Gly Lys Ser Phe Gly Asp Leu Val Ser Arg Arg Lys His Met  
 35 40 45  
 Arg Ile His Ile Val Lys Lys Pro Val Glu Cys Arg Gln Cys Gly Lys  
 50 55 60  
 Thr Phe Arg Asn Gln Ser Ile Leu Lys Thr His Met Asn Ser His Thr  
 65 70 75 80  
 Gly Glu Lys Pro Tyr Gly Cys Asp Leu Cys Gly Lys Ala Phe Ser Ala  
 85 90 95  
 Ser Ser Asn Leu Thr Ala His Arg Lys Ile His Thr Gln Glu Arg Arg  
 100 105 110  
 Tyr Glu Cys Ala Ala Cys Gly Lys Val Phe Gly Asp Tyr Leu Ser Arg  
 115 120 125  
 Arg Arg His Met Ser Val His Leu Val Lys Lys Arg Val Glu Cys Arg  
 130 135 140  
 His Cys Gly Lys Ala Phe Arg Asn Gln Ser Thr Leu Lys Thr His Met  
 145 150 155 160  
 Arg Ser His Thr Gly Glu Lys Pro Tyr Glu Cys Asp His Cys Gly Lys  
 165 170 175  
 Ala Phe Ser Ile Gly Ser Asn Leu Asn Val His Arg Arg Ile His Thr  
 180 185 190  
 Gly Glu Lys Pro Tyr Glu Cys Leu Val Cys Gly Lys Ala Phe Ser Asp  
 195 200 205  
 His Ser Ser Leu Arg Ser His Val Lys Thr His Arg Gly Glu Lys Leu  
 210 215 220  
 Phe Xaa Cys His Pro Cys Gly Lys Gly Ser Ser Glu Arg Ala Xaa Leu  
 225 230 235 240

<210> 599  
 <211> 340  
 <212> DNA  
 <213> Homo sapiens

<400> 599  
 acgcgtgcct cgcgactctt gacgtcgtgg tggctgcgct cggtcgtgtc actcctcttg  
 60  
 ttcggcgctca tggcgcaggt gctaggcgtg gccgtgcatc tgagtctgca ccgctttgcc  
 120  
 caggcatgtt tgccggggccg catcccttgc acttgcagtc cgtggcctat cggccgaggc  
 180  
 gcaggcctgc agttggagcc gtgcgtgggt gtcccgcgcg aggagcgtgt tggcagacta  
 240  
 tggggctcgt cggaggacga ggatgtgagt ggcgatggct ttgcgcgact gggcgtattc  
 300  
 caccggcgga tgggtgtcca gatcgtccag ggcgatgatca  
 340

<210> 600  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 600  
 Met Pro Trp Thr Ile Trp Ser Thr Ile Ala Gly Trp Asn Thr Pro Ser  
 1 5 10 15  
 Arg Ala Lys Pro Ser Pro Leu Thr Ser Ser Ser Ser Asp Glu Pro His  
 20 25 30  
 Ser Leu Pro Thr Arg Ser Ser Arg Gly Thr Pro Thr His Gly Ser Asn  
 35 40 45  
 Cys Arg Pro Ala Pro Arg Pro Ile Gly His Gly Leu Gln Val Gln Gly  
 50 55 60  
 Met Arg Pro Gly Lys His Ala Trp Ala Lys Arg Cys Arg Leu Arg Cys  
 65 70 75 80  
 Thr Ala Thr Pro Ser Thr Cys Ala Met Thr Pro Asn Lys Arg Ser Asp  
 85 90 95  
 Thr Thr Glu Arg Ser His His Asp Val Lys Ser Arg Glu Ala Arg  
 100 105 110

<210> 601  
 <211> 421  
 <212> DNA  
 <213> Homo sapiens

<400> 601  
 gccggcggca gcgacatctc gctcaacgtc ggcgtgcgcg gcctgacttc gcgtctttct  
 60  
 ccgcgctcca ccattttgat ggacggcgct ccgctggcgg tcgcgcctta cggccagccg  
 120  
 cagctgtcga tggccccgct gtctatcggt aatctgcaat cggaggacgt ggtgcgcggc  
 180  
 ggcggcgcgg tgcgctacgg gccgcagaac gtcggcggcg tgatcaactt cgttaccgga  
 240



gacattccca aaacgttttg cggtgccgcc agcgtacaaa cccaggggtgc cagccacggc  
 300  
 ggctgaaga ccctgaccag cgcctccgtg ggcggcaccg cagacaacgg cctcggcgcc  
 360  
 gagctgctct actccggcct gcacggccag ggctaccgcg acaacaacga caacaccgac  
 420  
 n  
 421

<210> 602  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

<400> 602  
 Ala Gly Gly Ser Asp Ile Ser Leu Asn Val Gly Val Arg Gly Leu Thr  
 1 5 10 15  
 Ser Arg Leu Ser Pro Arg Ser Thr Ile Leu Met Asp Gly Val Pro Leu  
 20 25 30  
 Ala Val Ala Pro Tyr Gly Gln Pro Gln Leu Ser Met Ala Pro Leu Ser  
 35 40 45  
 Ile Gly Asn Leu Gln Ser Val Asp Val Val Arg Gly Gly Gly Ala Val  
 50 55 60  
 Arg Tyr Gly Pro Gln Asn Val Gly Gly Val Ile Asn Phe Val Thr Arg  
 65 70 75 80  
 Asp Ile Pro Lys Thr Phe Gly Gly Ala Ala Ser Val Gln Thr Gln Gly  
 85 90 95  
 Ala Ser His Gly Gly Leu Lys Thr Leu Thr Ser Ala Ser Val Gly Gly  
 100 105 110  
 Thr Ala Asp Asn Gly Leu Gly Ala Glu Leu Leu Tyr Ser Gly Leu His  
 115 120 125  
 Gly Gln Gly Tyr Arg Asp Asn Asn Asp Asn Thr Asp  
 130 135 140

<210> 603  
 <211> 309  
 <212> DNA  
 <213> Homo sapiens

<400> 603  
 nagggcggca tgcacgaaag cttgcgcaaa cgctcgctgg aaggcttgga caagatcggc  
 60  
 ttcgacggcc tggccatcgg cggctctgtcg gtgggcgagc ccaagcacga gatgatcaag  
 120  
 gtgctggatt acctgccggg cctgatgccg gctgacaaac ctcgttacct tatgggcgtt  
 180  
 ggcaaaccgg aagacctcgt agaggggtgtg cgccgcgggtg tggacatgtt cgattgcgtg  
 240  
 atgccaaccc gtaatgcccc caatgggcat ctgttcatcg atacaggcgt gctgaagatc  
 300  
 cgtaacgcg  
 309

<210> 604

<211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 604  
 Xaa Gly Gly Met His Glu Ser Leu Arg Lys Arg Ser Leu Glu Gly Leu  
 1 5 10 15  
 Asp Lys Ile Gly Phe Asp Gly Leu Ala Ile Gly Gly Leu Ser Val Gly  
 20 25 30  
 Glu Pro Lys His Glu Met Ile Lys Val Leu Asp Tyr Leu Pro Gly Leu  
 35 40 45  
 Met Pro Ala Asp Lys Pro Arg Tyr Leu Met Gly Val Gly Lys Pro Glu  
 50 55 60  
 Asp Leu Val Glu Gly Val Arg Arg Gly Val Asp Met Phe Asp Cys Val  
 65 70 75 80  
 Met Pro Thr Arg Asn Ala Arg Asn Gly His Leu Phe Ile Asp Thr Gly  
 85 90 95  
 Val Leu Lys Ile Arg Asn Ala  
 100

<210> 605  
 <211> 428  
 <212> DNA  
 <213> Homo sapiens

<400> 605  
 acgcgttcac gatagggtag ttgcctatatt caacgcggtc ggtattttcc tgcacaacaa  
 60  
 actggcccaa ggctgggcta tagtcagggtg catagtactt ggtgaagtag cgtacgtccg  
 120  
 caccacatc acatttcagt accttggcta tcttcaatcg gaaaaaaga ttggagtaaa  
 180  
 tgttgagttt tggtaatggc aacgccgttt gactggaaga gttttggaag gtaatgaccg  
 240  
 attcccagtg caaagggtccc catgctacat cctgcgacaa tgaggccgtt agcacgttta  
 300  
 ttgcctcgct gctttgccga acgccaacct ctgtaccgat acgctgatac tgattgttga  
 360  
 tggatataggc ttgcgccagg taggtataat tgggtcaattc gtccatggca atgcgcagtg  
 420  
 aagtcttg  
 428

<210> 606  
 <211> 135  
 <212> PRT  
 <213> Homo sapiens

<400> 606  
 Met Asp Glu Leu Thr Asn Tyr Thr Tyr Leu Ala Gln Ala Tyr Thr Ile  
 1 5 10 15  
 Asn Asn Gln Tyr Gln Arg Ile Gly Thr Glu Val Gly Val Arg Gln Ser  
 20 25 30  
 Ser Glu Ala Ile Asn Val Leu Thr Ala Ser Leu Ser Gln Asp Val Ala

```
<210> 607
<211> 366
<212> DNA
<213> Homo sapiens
```

```
<210> 608
<211> 122
<212> PRT
<213> Homo sapiens
```

~~BNSDOCID: CWO 0050473A2-1~~

100 105 110  
 Thr Asp Glu Lys Tyr Leu Pro Glu Asp Ala  
 115 120

<210> 609  
 <211> 291  
 <212> DNA  
 <213> Homo sapiens

<400> 609  
 nacgcgttat gacacggcct cctccaaggt cagtgtcatc gagtcacgta actcgtcggg  
 60  
 tgggtcgggtt ggaacgagtc cgtcatgagc ccggtcgcca tggacgactc cagcagtcgg  
 120  
 taccagcctt ggaagcagga cccccacgcg acggaatcgc cggcttccaa gtcgtcggcc  
 180  
 ccgaagcctc aaacttcccc cgccccgtac gccggggccgg ctccgaagac accggccaca  
 240  
 cctggaccat ctggggcggg ggcgcgcggc tgggtggaggc ggggtggagcc g  
 291

<210> 610  
 <211> 69  
 <212> PRT  
 <213> Homo sapiens

<400> 610  
 Met Ser Pro Val Ala Met Asp Asp Ser Ser Ser Pro Tyr Pro Ala Trp  
 1 5 10 15  
 Lys Gln Asp Pro His Ala Thr Glu Ser Pro Ala Ser Lys Ser Ser Pro  
 20 25 30  
 Pro Lys Pro Gln Thr Ser Pro Ala Pro Tyr Ala Gly Pro Ala Pro Lys  
 35 40 45  
 Thr Pro Ala Thr Pro Gly Pro Ser Gly Ala Gly Ala Pro Pro Trp Trp  
 50 55 60  
 Trp Arg Val Glu Pro  
 65

<210> 611  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 611  
 nnnatcttgt gtcgattttc ggtcgcatac actatggggg agtattgtat aatgcggcgg  
 60  
 tgtaccaag tagagaggtg ttcgatgcca cacagtccgg aagaaaagaa gcaagcactg  
 120  
 acgcgcatca ggcgcaccaa aggtcaggta gcgactcttg agcaagcgct tgatgcaggt  
 180  
 gcgaaatgtc ctgcaattct tcagcagctt gcggccgttc gtggcgagct caacggattg  
 240  
 atggcaacgg ttctggagag ctatctgcgg gaagagtttc ccagtagcga aatcaggagc  
 300

gattcgcaga acaagtccat tgacgagacc atctctatcg tccgctccta tctgcggtag  
360

aggcaccagg gtgtcctcgg tgagggcaaa ttt  
393

<210> 612

<211> 119

<212> PRT

<213> Homo sapiens

<400> 612

Xaa	Ile	Leu	Cys	Arg	Phe	Ser	Val	Ala	Tyr	Thr	Met	Gly	Glu	Tyr	Cys
1				5					10					15	
Ile	Met	Arg	Arg	Cys	Thr	Gln	Val	Glu	Arg	Cys	Ser	Met	Pro	His	Ser
			20					25					30		
Pro	Glu	Glu	Lys	Lys	Gln	Ala	Leu	Thr	Arg	Ile	Arg	Arg	Ile	Lys	Gly
		35					40					45			
Gln	Val	Ala	Thr	Leu	Glu	Gln	Ala	Leu	Asp	Ala	Gly	Ala	Lys	Cys	Pro
	50					55				60					
Ala	Ile	Leu	Gln	Gln	Leu	Ala	Ala	Val	Arg	Gly	Ala	Val	Asn	Gly	Leu
65				70					75					80	
Met	Ala	Thr	Val	Leu	Glu	Ser	Tyr	Leu	Arg	Glu	Glu	Phe	Pro	Ser	Ser
			85					90					95		
Glu	Ile	Arg	Ser	Asp	Ser	Gln	Asn	Lys	Ser	Ile	Asp	Glu	Thr	Ile	Ser
			100					105					110		
Ile	Val	Arg	Ser	Tyr	Leu	Arg									
							115								

<210> 613

<211> 567

<212> DNA

<213> Homo sapiens

<400> 613

gaaaatgctc ctggcgccctc aggggaaggctc cttctcaaag aaaaggatgg ggctgaatcg  
60  
ctggaaaacgg ttcacaagga agccgagctc caagcctact tttggctcctg acagtgtgga  
120  
acactggata aagagagtgg agaaagcctc agagtttgca gtgtcaaattg catttttttac  
180  
tagaaattca gatttaccta gaagtccttg gggccaaatc acagatttga aaacatctga  
240  
gcaaataagag gatcatgatg aaatctatgc agaagctcag gagctgggtca atgactgggt  
300  
agacaccaaa cttaagcaag aattagcaag tgaggaagaa ggtgatgcta aaaacactgt  
360  
gtcaagtgtc actattatgc cggaagccaa tggccatttg aaatatgaca agtttggatga  
420  
tttatgtggc tatttggagg aagaagagga aagtaccacc gttcaaaaat ttatagacca  
480  
tctgctccat aaaaatgtgg tagattctgc aatgatggaa gatcttggaa ggaaggaaaa  
540  
ccaagacaag aagcagcaga aggatcc  
567

<210> 614  
 <211> 187  
 <212> PRT  
 <213> Homo sapiens

<400> 614  
 Met Leu Leu Ala Pro Gln Gly Arg Ser Phe Ser Lys Lys Arg Met Gly  
 1 5 10 15  
 Leu Asn Arg Trp Lys Arg Phe Thr Arg Lys Pro Ser Pro Lys Pro Thr  
 20 25 30  
 Phe Gly Pro Asp Ser Val Glu His Trp Ile Lys Arg Val Glu Lys Ala  
 35 40 45  
 Ser Glu Phe Ala Val Ser Asn Ala Phe Phe Thr Arg Asn Ser Asp Leu  
 50 55 60  
 Pro Arg Ser Pro Trp Gly Gln Ile Thr Asp Leu Lys Thr Ser Glu Gln  
 65 70 75 80  
 Ile Glu Asp His Asp Glu Ile Tyr Ala Glu Ala Gln Glu Leu Val Asn  
 85 90 95  
 Asp Trp Leu Asp Thr Lys Leu Lys Gln Glu Leu Ala Ser Glu Glu Glu  
 100 105 110  
 Gly Asp Ala Lys Asn Thr Val Ser Ser Val Thr Ile Met Pro Glu Ala  
 115 120 125  
 Asn Gly His Leu Lys Tyr Asp Lys Phe Asp Asp Leu Cys Gly Tyr Leu  
 130 135 140  
 Glu Glu Glu Glu Glu Ser Thr Thr Val Gln Lys Phe Ile Asp His Leu  
 145 150 155 160  
 Leu His Lys Asn Val Val Asp Ser Ala Met Met Glu Asp Leu Gly Arg  
 165 170 175  
 Lys Glu Asn Gln Asp Lys Lys Gln Gln Lys Asp  
 180 185

<210> 615  
 <211> 685  
 <212> DNA  
 <213> Homo sapiens

<400> 615  
 nnacgcgtgc tgcctaagt gacggattcc atgtcgggtgc gagtcgggtc ggggccgatg  
 60  
 ggccatgaac gggccctagc gagggccgga ctcggccccc tggccggatg cgacgaggcg  
 120  
 gggcggggcg cgtgtgcagg gccattggta gccgcagctg tcattcttga tgatcgcaga  
 180  
 tccggcagga ttgcggggct agcagattcc aagacactat ctgcggccaa gagagaggcc  
 240  
 ctgtttaacg tcatcatgga taaagctttg gcagtgtcgt gggtagctgt agaagccgac  
 300  
 gaatgcgatc ggttggggat gcaggaggca gatatcagcg gcttgaggcg tgccgtgggtg  
 360  
 aggctgggag ttgaaccggg ctacgtgctg tcggacggtt tcccggtcga cggactgacg  
 420  
 gttcccgatc tgggaatgtg gaagggcgat tcagtgtgtg cgtgtgtggc agctgcctcc  
 480

atcgtggcca aagtggccag ggatcgcatc atgategcta tggacgccga gattcctggt  
 540  
 tacgattttg cgggtgcacaa ggggtacgcg acagccttac accagcgctcg tctgaaggag  
 600  
 ttaggaccgt ctcgtcagca ccggatgagc tacgccaatg tgcgacgagc ggctaggctt  
 660  
 cattcatcat gagtgccgaa gatct  
 685

<210> 616  
 <211> 213  
 <212> PRT  
 <213> Homo sapiens

<400> 616  
 Met Ser Val Arg Val Gly Ser Gly Pro Met Gly His Glu Arg Ala Leu  
 1 5 10 15  
 Ala Arg Ala Gly Leu Gly Pro Val Ala Gly Cys Asp Glu Ala Gly Arg  
 20 25 30  
 Gly Ala Cys Ala Gly Pro Leu Val Ala Ala Ala Val Ile Leu Asp Asp  
 35 40 45  
 Arg Arg Ser Gly Arg Ile Ala Gly Leu Ala Asp Ser Lys Thr Leu Ser  
 50 55 60  
 Ala Ala Lys Arg Glu Ala Leu Phe Asn Val Ile Met Asp Lys Ala Leu  
 65 70 75 80  
 Ala Val Ser Trp Val Arg Val Glu Ala Asp Glu Cys Asp Arg Leu Gly  
 85 90 95  
 Met Gln Glu Ala Asp Ile Ser Gly Leu Arg Arg Ala Val Val Arg Leu  
 100 105 110  
 Gly Val Glu Pro Gly Tyr Val Leu Ser Asp Gly Phe Pro Val Asp Gly  
 115 120 125  
 Leu Thr Val Pro Asp Leu Gly Met Trp Lys Gly Asp Ser Val Cys Ala  
 130 135 140  
 Cys Val Ala Ala Ala Ser Ile Val Ala Lys Val Ala Arg Asp Arg Ile  
 145 150 155 160  
 Met Ile Ala Met Asp Ala Glu Ile Pro Gly Tyr Asp Phe Ala Val His  
 165 170 175  
 Lys Gly Tyr Ala Thr Ala Leu His Gln Arg Arg Leu Lys Glu Leu Gly  
 180 185 190  
 Pro Ser Arg Gln His Arg Met Ser Tyr Ala Asn Val Arg Arg Ala Ala  
 195 200 205  
 Arg Leu His Ser Ser  
 210

<210> 617  
 <211> 337  
 <212> DNA  
 <213> Homo sapiens

<400> 617  
 nncacctgtt tggctcgggg cactcgcgga tcatgggtcga ggaaatgtgg ccgcgctacg  
 60  
 gctcgtttcc cggcttcaac cccatcgctc agctgtcgct gtcgttccac aacctcgctc  
 120

tcggcgccaa cggccagcgc caggccatgt tcttcgaaaa cgtttccggc cttcccggag  
180  
cgaatcctcc gaaacttcga cctgtcccaa caagactctg cactcgtgat ttcacaaagc  
240  
gctgcaacgt cgtgccaatc gagatggccg aggagttcca gcgtcgcggc gtccgcgtcg  
300  
tctcgatcat ctcgctggcg cactcgcagg cgtcgac  
337

<210> 618  
<211> 112  
<212> PRT  
<213> Homo sapiens

<400> 618  
Xaa Thr Cys Leu Ala Arg Gly Thr Arg Gly Ser Trp Ser Arg Lys Cys  
1 5 10 15  
Gly Arg Ala Thr Ala Arg Phe Pro Ala Ser Thr Pro Ser Ser Ser Cys  
20 25 30  
Arg Cys Arg Ser Thr Thr Ser Ser Ala Pro Thr Ala Ser Ala Arg  
35 40 45  
Pro Cys Ser Ser Lys Thr Phe Pro Ala Phe Pro Glu Arg Ile Leu Arg  
50 55 60  
Asn Phe Asp Leu Ser Gln Gln Asp Ser Ala Leu Val Ile Ser Ser Ser  
65 70 75 80  
Ala Ala Thr Ser Cys Gln Ser Arg Trp Pro Arg Ser Ser Ser Val Ala  
85 90 95  
Ala Ser Ala Ser Ser Arg Ser Ser Arg Trp Arg Thr Arg Arg Arg Arg  
100 105 110

<210> 619  
<211> 425  
<212> DNA  
<213> Homo sapiens

<400> 619  
acgcgttttt tatgccgac ttatgctcta acctagaaac aatatacagct acaaacctaa  
60  
tagctataag ataataattcg aaagcatcaa taggagtttt gatcatttcc gcatacctaa  
120  
gttttatagc atctttgtca gaaggcaaac ctgccaaacc agatgaatcg atgccactct  
180  
caaacttgct caaatgttca attaaatcat ccaagttgtg gccatgctta ccgcttccag  
240  
attttgatg aatcattact ttaattgatt tttcaatcgc taaatggaat tcccagcaag  
300  
caatagaagc ccgctcattt ttaaagctca gtatgtcact aatgcctttt tcgaagtggc  
360  
tccatattcc ctgcgccata ttagaagctg actggttgga atggcttgcc atgttcaa  
420  
ctaga  
425

<210> 620



<211> 137  
 <212> PRT  
 <213> Homo sapiens

<400> 620  
 Met Ala Ser His Ser Asn Gln Ser Ala Ser Asn Met Ala Gln Gly Ile  
 1 5 10 15  
 Trp Ser His Phe Glu Lys Gly Ile Ser Asp Ile Leu Ser Phe Lys Asn  
 20 25 30  
 Glu Arg Ala Ser Ile Ala Cys Trp Glu Phe His Leu Ala Ile Glu Lys  
 35 40 45  
 Ser Ile Lys Val Met Ile His Ser Lys Ser Gly Ser Gly Lys His Gly  
 50 55 60  
 His Asn Leu Asp Asp Leu Ile Glu His Leu Ser Lys Phe Glu Ser Gly  
 65 70 75 80  
 Ile Asp Ser Ser Gly Leu Ala Gly Leu Pro Ser Asp Lys Asp Ala Ile  
 85 90 95  
 Lys Leu Arg Tyr Ala Glu Met Ile Lys Thr Pro Ile Asp Ala Phe Glu  
 100 105 110  
 Tyr Tyr Leu Ile Ala Ile Arg Phe Val Ala Asp Ile Val Ser Arg Leu  
 115 120 125  
 Glu His Lys Ile Gly Ile Lys Asn Ala  
 130 135

<210> 621  
 <211> 453  
 <212> DNA  
 <213> Homo sapiens

<400> 621  
 cccggcaagg gagccatctt gacgaatatg tccttgtggt ggttcgacca attggccgac  
 60  
 atcgctcgata accatctcgt gagcgtggat gtccccgccg aggtcgcagg gcgcgccatg  
 120  
 gtcgttgagg aactcgacat gttccccggtc gaatgcgtcg tgcgggggcta cctcaccggt  
 180  
 tcagggtggg ccgaatatca gcgcaaccag gccgtgtgcg gaatccgcct tcccaggggg  
 240  
 ctgcagaatg ggtccccggct cgaagagccc attttcaccc cggcaattaa ggccccgcag  
 300  
 ggagaacatg acgagaacat cgactatcta cgcttggttag aactcgtcgg tccngatgn  
 360  
 tcagcgcagc tgcattgacct ttcgctgcgg gtctaccagc gtgcagagga gatcgctcgg  
 420  
 aagcgaggca tcctcctggc ggataccaag ctt  
 453

<210> 622  
 <211> 151  
 <212> PRT  
 <213> Homo sapiens

<400> 622  
 Pro Gly Lys Gly Ala Ile Leu Thr Asn Met Ser Leu Trp Trp Phe Asp

1	5	10	15
Gln Leu Ala Asp Ile Val Asp Asn His Leu Val Ser Val Asp Val Pro			
20	25	30	
Ala Glu Val Ala Gly Arg Ala Met Val Val Glu Glu Leu Asp Met Phe			
35	40	45	
Pro Val Glu Cys Val Val Arg Gly Tyr Leu Thr Gly Ser Gly Trp Ala			
50	55	60	
Glu Tyr Gln Arg Asn Gln Ala Val Cys Gly Ile Arg Leu Pro Glu Gly			
65	70	75	80
Leu Gln Asn Gly Ser Arg Leu Glu Glu Pro Ile Phe Thr Pro Ala Ile			
85	90	95	
Lys Ala Pro Gln Gly Glu His Asp Glu Asn Ile Asp Tyr Leu Arg Leu			
100	105	110	
Val Glu Leu Val Gly Pro Xaa Xaa Ser Ala Gln Leu His Asp Leu Ser			
115	120	125	
Leu Arg Val Tyr Gln Arg Ala Glu Glu Ile Ala Arg Lys Arg Gly Ile			
130	135	140	
Leu Leu Ala Asp Thr Lys Leu			
145	150		

&lt;210&gt; 623

&lt;211&gt; 345

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 623

acgcgtccag tatgtccacg gaggacatgc ttgacctcga ctcgaacgtc tcctactacg  
60  
cgaggaacta tcaggccgcg caatcagttg tggcgaaatt cgacgcgggc accattgccc  
120  
aagccgaaga cctgccacct gacgacaccc acacggggggc ggaactggta aagagcgtgg  
180  
tcaacagcat cacctgtgtg tcaccctgtg acatcgaaga tttcaccacc atagagatcc  
240  
aggggctggg actgcactgt gtcaggctct gggcgcttgg gctgctcgcc ctgtcactgc  
300  
ccagcgcacc catgcgggca cacccecgct acgccgcata tggcg  
345

&lt;210&gt; 624

&lt;211&gt; 111

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 624

Met Ser Thr Glu Asp Met Leu Asp Leu Asp Ser Asn Val Ser Tyr Tyr			
1	5	10	15
Ala Arg Asn Tyr Gln Ala Ala Gln Ser Val Val Ala Lys Phe Asp Ala			
20	25	30	
Gly Thr Ile Ala Gln Ala Glu Asp Leu Pro Pro Asp Asp Thr His Thr			
35	40	45	
Gly Ala Glu Leu Val Lys Ser Val Val Asn Ser Ile Thr Cys Val Ser			
50	55	60	
Pro Leu Tyr Ile Glu Asp Phe Thr Thr Ile Glu Ile Gln Gly Leu Gly			

65		70		75		80									
Leu	His	Cys	Val	Arg	Leu	Trp	Ala	Pro	Gly	Leu	Leu	Ala	Leu	Ser	Leu
				85					90					95	
Pro	Ser	Ala	Pro	Met	Arg	Ala	His	Pro	Arg	Tyr	Ala	Ala	Tyr	Gly	
			100					105					110		

<210> 625  
 <211> 339  
 <212> DNA  
 <213> Homo sapiens

<400> 625  
 ggtacccagc atgatgctgc tagacatttg ctgaatgcat agatgatttt tccagggcct  
 60  
 gtaattttaca gggagagcaa tggaggccca gagacaagat gattcagctc ctccactctg  
 120  
 ttcaggatca tatectaagg accaacaatgt ctgtctacct ttacactgag cccccaccca  
 180  
 gccaaaccacc tcccatgaga gacaggctct ccctgcctga gcttggaccc aggccccttc  
 240  
 tctgctgagc tcagaacaca tgcttgactg tgatgtaaca ggggtggcagc cccacagca  
 300  
 ttgcatctgc cccataactca gtgtggggag ataggacgc  
 339

<210> 626  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 626
Met Gly Gln Met Gln Cys Cys Gly Gly Cys His Pro Val Thr Ser Gln
1 5 10 15
Ser Ser Met Cys Ser Glu Leu Ser Arg Glu Gly Ala Trp Val Gln Ala
20 25 30
Gln Ala Gly Arg Ala Cys Leu Ser Trp Glu Val Val Gly Trp Val Gly
35 40 45
Ala Gln Cys Lys Gly Arg Gln Thr Cys Trp Ser Leu Gly Tyr Asp Pro
50 55 60
Glu Gln Ser Gly Gly Ala Glu Ser Ser Cys Leu Trp Ala Ser Ile Ala
65 70 75 80
Leu Pro Val Asn Tyr Arg Pro Trp Lys Asn His Leu Cys Ile Gln Gln
85 90 95
Met Ser Ser Ser Ile Met Leu Gly Thr
100 105

<210> 627  
 <211> 10319  
 <212> DNA  
 <213> Homo sapiens

<400> 627  
 nttcctccgc gaaggctcct ttgatattaa tagtggtggt gtcttgaaac tgacgtaatg  
 60

cgcgagagact gaggtcctga caagcgataa catttctgat aaagacccga tcttactgca  
120  
atctctagcg tectctttttt tgggtgctgct gggttctcca gacctcgct cctctcgatt  
180  
gctctctcgc cttcctatatt cttttttttt tttttaaaca aaaaacaaca cccctcccc  
240  
tctcccaccc ggcaccgggc acatccttgc tctatttctt ttctctttct ctctctctct  
300  
ctctctctct ctttttttaat aagggtgggg gagggaaagg ggggggatgc aggaaagacc  
360  
tttttctct cccccgcaa taatccaaga tcaactctgc aaacaacaga agacggttca  
420  
tggctttggc cgccgcgcca ccatctttct ggctgccgag ggtgttcttg acgattaatc  
480  
aacagatgta cagatcagct ctcaaatgt cttctgtgtc ttctgagcgt cttctaagac  
540  
aattgcatta gcctcctgct agttgactaa tagaattaat aattgtaaaa agcactctaa  
600  
agccacatgc cttatgaagt caatgctggg tatgatttta caaatatggt ccggaaaaag  
660  
aaccctctc tgagaaacgt tgcaagtga ggcgagggcc agatcctgga gcctataggt  
720  
acagaaagca aggtatctgg aaagaacaaa gaattttctg cagatcagat gtcagaaaat  
780  
acggatcaga gtgatgctgc agaactaaat cataaggagg aacatagctt gcatgttcaa  
840  
gatccatctt ctagcagtaa gaaggacttg aaaagcgcag ttctgagtga gaaggctggc  
900  
ttcaattatg aaagccccag taagggagga aactttccct cctttccgca tgatgaggtg  
960  
acagacagaa atatgttggc tttctcatct ccagctgctg ggggagtctg tgagcccttg  
1020  
aagtctccgc aaagagcaga ggcagatgac cctcaagata tggcctgcac ccctcaggg  
1080  
gactcactgg agacaaagga agatcagaag atgtcaccaa aggctacaga ggaaacaggg  
1140  
caagcacaga gtggtcaagc caattgtcaa ggtttgagcc cagtttcagt ggcctcaaaa  
1200  
aaccacaag tgccttcaga tgggggtgta agactgaata aatccaaaac tgacttactg  
1260  
gtgaatgaca acccagaccc ggcacctctg tctccagagc ttcaggactt taaatgcaat  
1320  
atctgtggat atggttacta cggcaacgac cccacagatc tgattaagca cttccgaaag  
1380  
tatcacttag gactgcataa ccgcaccagg caagatgctg agctggacag caaatcttg  
1440  
gcccttcata acatgggtgca gttcagccat tccaaagact tccagaaggt caaccgttct  
1500  
gtgttttctg gtgtgctgca ggacatcaat tcttcaaggc ctgttttact aaatgggacc  
1560  
tatgatgtgc aggtgacttc aggtggaaca ttcattggca ttggacggaa aacaccagat  
1620  
tgccaaggga acaccaagta tttccgctgt aaattctgca atttactta tatgggcaac  
1680

tcateccaccg aattagaaca acatttttctt cagactcacc caaacaaaat aaaagcttct  
1740  
ctccccctct ctgagggtgc aaaaccttca gagaaaaact ctaacaagtc catccctgca  
1800  
cttcaatcca gtgattctgg agacttggga aaatggcagg acaagataac agtcaaagca  
1860  
ggagatgaca ctctgttgg gtactcagtg ccataaaagc ccctcgattc ctctagacaa  
1920  
aatggtacag aggccaccag ttactactgg tgtaaatttt gtagtttcag ctgtgagtca  
1980  
tctagctcac ttaaactgct agaacattat ggcaagcagc acggagcagt gcagtcaggc  
2040  
ggccttaatc cagagttaaa tgataagctt tccaggggct ctgtcattaa tcagaatgat  
2100  
ctagccaaaa gttcagaagg agagacaatg accaagacag acaagagctc gagtggggct  
2160  
aaaaagaagg acttctccag caaggagcc gaggataata tggtaacgag ctataattgt  
2220  
cagttctgtg acttccgata ttccaaaagc catggccctg atgtaattgt agtggggcca  
2280  
cttctccgtc attatcaaca gctccataac attcacaagt gtaccattaa acactgtcca  
2340  
ttctgtccca gaggactttg cagcccagaa aagcaccttg gagaaattac ttatccgttt  
2400  
gcttgtagaa aaagtaattg ttcccactgt gcaactcttg ttctgcactt gtctcctggg  
2460  
gcggttgaa gctcgcgagt caaacatcag tgccatcagt gttcattcac caccctgac  
2520  
gtagatgtac tctcttttca ctatgaaagt gtgcatgagt cccaagcatc ggatgtcaaa  
2580  
caagaagcaa atcacctgca aggatcggat gggcagcagt ctgtcaagga aagcaaagaa  
2640  
cactcatgta ccaaagtga ttttattacc caagtggag aagagatttc ccgacactac  
2700  
aggagagcac acagctgcta caaatgccgt cagtgcagtt ttacagctgc cgatactcag  
2760  
tcactactgg agcacttcaa cactgttcac tgccaggaac aggacatcac tacagccaac  
2820  
ggcgaagagg acggtcatgc catatccacc atcaaagagg agcccaaat tgacttcagg  
2880  
gtctacaatc tgctaactcc agactctaaa atgggagagc cagtttctga gagtgtggtg  
2940  
aagagagaga agctggaaga gaaggacggg ctcaaagaga aagtttggac cgagagtcc  
3000  
agtgatgacc ttcgcaatgt gacttggaga ggggcagaca tcctgcgggg gagtccgtca  
3060  
tacaccaag caagcctggg gctgctgacg cctgtgtctg gcaccaaga gcagacaaag  
3120  
actctaaggg atagtcccaa tgtggaggcc gccatctgg cgcgacctat ttatggcttg  
3180  
gctgtggaaa ccaagggatt cctgcagggg gcgccagctg gcggagagaa gtctggggcc  
3240  
ctccccagc agtatcctgc atcgggagaa aacaagtcca aggatgaatc ccagtccttg  
3300

ttacggaggc gtagaggctc cgggtgttttt tgtgccaatt gcctgaccac aaagacctct  
3360  
ctctggcgaa agaatgcaaa tggcggatat gtatgcaacg cgtatggcct ctaccagaag  
3420  
cttcactcga ctcccaggcc tttaaacatc attaaacaaa acaacgggtga gcagattatt  
3480  
aggaggagaa caagaaagcg ccttaaccca gaggcacttc aggctgagca gctcaacaaa  
3540  
cagcagaggg gcagcaatga ggagcaagtc aatggaagcc cgtagagag gaggtcagaa  
3600  
gatcatctaa ctgaaagtca ccagagagaa attccactcc ccagcctaag taaatacgaa  
3660  
gcccagggtt cattgactaa aagccattct gctcagcagc cagtccctggc cagccaaact  
3720  
ctggatatcc acaaaaggat gcaacctttg cacattcaga taaaaagtcc tcaggaaagt  
3780  
actggagatc caggaaatag ttcattccgta tctgaaggga aaggaagttc tgagagaggc  
3840  
agtcctatag aaaagtacat gagacctgcy aaacacccaa attattcacc accaggcagc  
3900  
cctattgaaa agtaccagta cccacttttt ggacttccct ttgtacataa tgacttccag  
3960  
agtgaagctg attggctgcy gttctggagt aaatataagc tctccgttcc tgggaatccg  
4020  
cactacttga gtcacgtgcc tggcctacca aatccttgcc aaaactatgt gccttatccc  
4080  
accttcaatc tgcttctca tttttcagct gttggatcag acaatgacat tcctctagat  
4140  
ttggcgatca agcattccag acctgggcca actgcaaacg gtgcctccaa ggagaaaacg  
4200  
aaggcaccac caaatgtaaa aaatgaaggt cccttgaatg tagtaaaaac agagaaagtt  
4260  
gatagaagta ctcaagatga actttcaaca aaatgtgtgc actgtggcat tgtctttctg  
4320  
gatgaagtga tgtatgcttt gcatatgagt tgccatgggtg acagtggacc ttccagtg  
4380  
agcatatgcc agcatctttg cacggacaaa tatgacttca caacacatat ccagaggggc  
4440  
ctgcatagga acaatgcaca agtggaaaaa aatggaaaac cttaaagagta aaaccttagc  
4500  
acttagcaca attaaataga aataggtttt ctgatggga attcaatagc ttgtaatgtc  
4560  
ttatgaagac ctattaaaaa aatacttcat agagcctgcc ttatccaaca tgaaattccc  
4620  
ttcttttgtt attctttctt ttgatgagta ggttaccaag attaaaaagt gagataaatg  
4680  
gtcaatgaga aagaatggaa gatggtaaac aatcactttt taaaacctgt taagtcaaaa  
4740  
ccatcttggc taatatgtac tggggaaata atccataaga gatatcacca gactagaatt  
4800  
aatatattta taaagaaaga gacaaaaact gtctagaatt tgaaagggtt tacatattat  
4860  
tatactaaag cagtactgga ctggccattg gaccatttgt tccaaaaccc ataaattgtt  
4920

gcctaaatTTT ataatgatca tgaaacccta ggcagaggag gagaaattga aggtccaggg  
4980  
caatgaaaga aaaatggcgc cctctcaatt tagtcttctc tcattggcca tgtttcagat  
5040  
tttgacctag aaatgcgagc tgtgggttagg cttgggttaga gtgcagcaag caacatgaca  
5100  
gatgggtggca cgctgttttt acccagccct gcctgtacat acacatgcac accctctctg  
5160  
atatttttTgt ccttttagatg ttcaaatact cagtagtcct tttgtttgcg gtttagattc  
5220  
attttTgtcca cacatgtacc catttttaaaa aacaatgtcc tcgatgcttc tgtagtgatt  
5280  
tcatttttagc caggatatttc tttcttTgtgt gtgatgaacc agtatggatt tgcttttcta  
5340  
agcctcctgt tggttactaa tctcacttgg cacattataa ctaaaggaat cccctcaatt  
5400  
caaaagcata gatggataca aatgtcagac cgtgggttta atttTgttag aacacatggc  
5460  
atttcttcac aaggtaacct gctgtattta tttattttct tttggttaaa tataatttcc  
5520  
aaactttTgtg gtcaggcagc gtctaagggt acgttaccac agactgacag ttggatatg  
5580  
taccagccaa tcccttcatt aaatgtatac agatttagtt aagtagcatt aaataggatt  
5640  
cttagaagta tgcctcata gaacttttaa tacttaaggc tttgtaaaaa ctatccatga  
5700  
agggaaagct cctcagcata actgctcagg gaaatagggc taaataactg aacattaaat  
5760  
aattgggttaa aggtgctgtt agtcgagcct caatgcttgc tacaaggatg tatgtacaag  
5820  
gactgacttt aataatttgc attatattgt cccaaccagt agtttatttt ttgccacgga  
5880  
gatgtagaag atattacaag ctactggatg cactgtcaga ttaacttatt tcattaaaga  
5940  
agttgggaga acaaatagga aaaaaaaaaac ttatttttct agtaaataatt aatgtattac  
6000  
atttcaaata atggtgcctg acatattgaa taattatttt ctacagtgtg cgtatgcaac  
6060  
aaagatatte catcatgcat tagagtcagt tctggctctg cctagctgtt tacatttgca  
6120  
aatgtagcaa acaaggtaat gaagcaacta tttctattgc agtagatatc cttttgtgtg  
6180  
tgtgtgtgtg cattaaagtt gtaaacggta acatgaaaca aatgaaagtt cttgctataa  
6240  
tggtatggaa aacaagaagg aaatgaaaat atttttatgc ctacttagga aaaaaagggt  
6300  
agcacttatt cattccaagt actttttttt ttttaatttt taagctctta actcacattg  
6360  
ttatgcttaa gatgataaac atatatcctc tttttattgc tttgtctatg tttcatatga  
6420  
aacatttcag aaattatttt gataagtgtt gctggaatct gcaacgctga tttttttttg  
6480  
cattctgtag tcgcatttgc actccatttt tacattaatt cgcagttgct ttgtatcatt  
6540



gttttggttg ggttttggtt ctttttcaca gtgccgggtc ttcgtttctt aaagttggat  
6600  
ggcaggtaga gttcaaccag ttcgtgactg ttgtagcgaa tgaagttaaa aaaatgtctt  
6660  
tctgatgttg tgttggtcatt ttcatttttg catttttttg tttgcatatt aaaaaaagag  
6720  
aaaagagaaa gcaagagaca gaaatcagga ctaagtcctc tgcttcagtt tcattgttaa  
6780  
cgggccttat tctgatctca cctgtcgcgt agctctaata ttcacataaa ctgaaataaa  
6840  
gaagtggat gagagcttt gacattcaaa ttatgtgatg taatttatct tccttaggaa  
6900  
ttttgatgga tgcattctca aatgtatagc cagacttgag aggtgacaat taaagatcta  
6960  
aaaaagagag gagattcccc caaacaacaa tatttaattt tcttagtaaa aagaataaca  
7020  
gaatgcatcg tggcaatcct taagcaacat tatctatgtg gactgcttaa atcagcaaaa  
7080  
caccagaagt ttggttaact tgggcaatat gacaagtatt actttttggg caaaactact  
7140  
cattaagcaa tttctctagt gtgtcggaca caaatagggt ctttattttt ggcatgtatg  
7200  
cctttttatt ttcattcaat tttttttttt tctcagacag acatagtagt atcaactagc  
7260  
attggaaaat acatatcact attcttgga ttttatgggt cagtctactt tttagtaaaa  
7320  
tatttttgga tagcgttgac acgatagatc ttattccata cttctttatt attgataatt  
7380  
ttattttcat tttttgcttt cattattata catatttttg tggagaagag gttgggcttt  
7440  
tttgaaagag acaaaaattt attataacac taaacactcc ttttttgaca tattaaagcc  
7500  
tttattccat ctctcaagat atattataaa atttattttt ttaatttaag atttctgaat  
7560  
tattttatct taaattgtga ttttaaacga gctattatgg tacggaactt tttttaatga  
7620  
ggaatttcat gatgatttag gaattttctc tcttggaana ggcttcccc gtgatgaaaa  
7680  
tgatgtgcca gctaaaattg tgtgccattt aaaaactgaa aatattttta aattatttgt  
7740  
ctatattcta aattgagctt tggatcaaac tttaggccag gaccagctca tgcgttctca  
7800  
ttcttctttt tctcactctt tctctcatca ctcacctctg tattcattct gttgtttggg  
7860  
atagaaaaat cataaagagc caacccatct cagaacgttg tggattgaga gagacactac  
7920  
atgactccaa gtatatgaga aaaggacaga gctctaattg ataactctgt agttcaaaaag  
7980  
gaaaagagta tgcccaattc tctctacatg acatattgag atttttttta atcaactttt  
8040  
aagatagtga tgttctgttc taaactgttc tgttttagtg aaggtagatt tttataaaac  
8100  
aagcatgggg attcttttct aaggtaatat taatgagaag ggaaaaaagt atctttaaca  
8160



gctctttgtt gaagcctgtg gtagcacatt atgtttataa ttgcacatgt gcacataatc  
8220  
tattatgata caatgcaaata acagctccaa aaatattaaa tgtatatata ttttaaaatg  
8280  
cctgaggaaa tacatttttc ttaataaaact gaagagtctc agtatggcta ttaaaataat  
8340  
tattagcctc ctgttgtgtg gctgcaaaac atcacaaagt gaccggtctt gagacctgtg  
8400  
aactgctgcc ctgttttagta aataaaatta atgcatttct agaggggggaa tatctgccat  
8460  
ccagtgggtg aaatgtggag taaagaagct ggtggtctgc ttctgtgctg tatgccagcc  
8520  
ttttgcctta agttgagagg aggtcaactt tagctactgt ctttggtttg agagccatgg  
8580  
caaaaaaaaa aaaaaaaaaa aagatcaagt cgtcttttgt gagccagtaa ggtgaaagct  
8640  
tgctgactgt ccaaggcaca agagaaaatt gaggaattga aatgcaacct gagtatcaaa  
8700  
ctaaatattc taatcaaagg taggtactgt taggtggaat tctatcagca ggcaactgca  
8760  
aatgagaaga agatagaagg acgcccgtcg ggactttgga gggcattgtt attttcccaa  
8820  
agaaagacgg ccaagggcag aggcattgat tctttgcaga gcacttcctt ttggtttttc  
8880  
agtactgttt catagacagt gggctcacat gttcctgata gtgctgcagt tgcttagaaa  
8940  
gcattccagt taattgcagt aattagaact tctggaatat gctagggcag aagtatgtca  
9000  
agtatgtcac atgaagaaaa tgtgaaattc aagagtaatc cacacgtgag aaactagaca  
9060  
atgtacattc atgtgttctc ttgaaaggaa agggagagct gtaagcttca ctctgtccta  
9120  
caccggagaa aagcaggaat aactttaccg tggaaataat gtttagcttt tatcagagaa  
9180  
aattgtcctt ctagagcata gagtcccaaa actcaattct ggttttcccc tgtttttttt  
9240  
tttttttttt ttcccaacat atgaactgca gcatactact ttttcttttt gtgcctcagg  
9300  
ttcctcagct gtaaaattga aaaatatatg tattaataat attattaata ataataatgg  
9360  
taatgtagta cttgttttga aagcactttg agatccttgg ttgaaaggca ccataggagt  
9420  
gccaagtatt attatgtggc caaggggggtt atttaaactg tcagttccca aaggccagga  
9480  
aagggtgggg tcattttttc taaagacgag ctgtaaatat caactaggca gccaatagt  
9540  
ttgactatga agatgcaaaa ctattactag gctgataaaa tcatagtctt ttaatggcta  
9600  
ccaataaggc aaatatcaca ataataaacg ccaaattcct tagggcggac tatttgacaa  
9660  
ccacatggaa aactttgggg gaggcattgag gggggaacat ctcaaaatgc caatgtaaaa  
9720  
tttaacttac agcaatattc accagcagaa aatgtctttc atatggaatg atttcatgtt  
9780

gctaagaaaa agaattcaat ttgtagtcct gatttgaata ctagaatggt ggctataata  
 9840  
 gttctgttct tacaacacat gaaatTTTTT cgTTTTatTTt tattttgttt tcatagtga  
 9900  
 tgttcatttc tactcacaaa catgttcttg gtgtatttct tatgcaaaca atcttcaggc  
 9960  
 agcaaagatg tctgttacat ctaaacttga ataataaagt tttaccacca gttacacata  
 10020  
 acggcgttgg tatggtttat atggattcac tttcatcctt ctagcaatag gaaatacaga  
 10080  
 tcattgtaat atatatatat atatatacag gctctgctga attgaaatgg tgaaatcaaa  
 10140  
 tcaccattct aaaaaattat tacttatatt gataaagcct ggattctctc aacttgTTTT  
 10200  
 gctttgcttt ttttctTTaa ccaatcaatc tcttactgat agattttgtg taaaaagata  
 10260  
 tatactagtt tcttcagaaa gattaacaat aaaaattgtg tttatttcaa aaaaaaaaaa  
 10319

<210> 628

<211> 1294

<212> PRT

<213> Homo sapiens

<400> 628

Met	Pro	Tyr	Glu	Val	Asn	Ala	Gly	Tyr	Asp	Phe	Thr	Asn	Met	Val	Arg
1				5					10					15	
Lys	Lys	Asn	Pro	Pro	Leu	Arg	Asn	Val	Ala	Ser	Glu	Gly	Glu	Gly	Gln
			20					25					30		
Ile	Leu	Glu	Pro	Ile	Gly	Thr	Glu	Ser	Lys	Val	Ser	Gly	Lys	Asn	Lys
		35					40					45			
Glu	Phe	Ser	Ala	Asp	Gln	Met	Ser	Glu	Asn	Thr	Asp	Gln	Ser	Asp	Ala
	50					55						60	Glu	Leu	Asn
Glu	His	Ser	Leu	His	Val	Gln	Asp	Pro							
65					70				75					80	
Ser	Ser	Ser	Ser	Lys	Lys	Asp	Leu	Lys	Ser	Ala	Val	Leu	Ser	Glu	Lys
				85					90					95	
Ala	Gly	Phe	Asn	Tyr	Glu	Ser	Pro	Ser	Lys	Gly	Gly	Asn	Phe	Pro	Ser
			100					105				110			
Phe	Pro	His	Asp	Glu	Val	Thr	Asp	Arg	Asn	Met	Leu	Ala	Phe	Ser	Ser
		115					120					125			
Pro	Ala	Ala	Gly	Gly	Val	Cys	Glu	Pro	Leu	Lys	Ser	Pro	Gln	Arg	Ala
	130					135					140				
Glu	Ala	Asp	Asp	Pro	Gln	Asp	Met	Ala	Cys	Thr	Pro	Ser	Gly	Asp	Ser
145				150					155					160	
Leu	Glu	Thr	Lys	Glu	Asp	Gln	Lys	Met	Ser	Pro	Lys	Ala	Thr	Glu	Glu
			165					170					175		
Thr	Gly	Gln	Ala	Gln	Ser	Gly	Gln	Ala	Asn	Cys	Gln	Gly	Leu	Ser	Pro
		180					185					190			
Val	Ser	Val	Ala	Ser	Lys	Asn	Pro	Gln	Val	Pro	Ser	Asp	Gly	Gly	Val
	195					200					205				
Arg	Leu	Asn	Lys	Ser	Lys	Thr	Asp	Leu	Leu	Val	Asn	Asp	Asn	Pro	Asp
	210					215					220				
Pro	Ala	Pro	Leu	Ser	Pro	Glu	Leu	Gln	Asp	Phe	Lys	Cys	Asn	Ile	Cys

225 230 235 240  
Gly Tyr Gly Tyr Tyr Gly Asn Asp Pro Thr Asp Leu Ile Lys His Phe  
245 250 255  
Arg Lys Tyr His Leu Gly Leu His Asn Arg Thr Arg Gln Asp Ala Glu  
260 265 270  
Leu Asp Ser Lys Ile Leu Ala Leu His Asn Met Val Gln Phe Ser His  
275 280 285  
Ser Lys Asp Phe Gln Lys Val Asn Arg Ser Val Phe Ser Gly Val Leu  
290 295 300  
Gln Asp Ile Asn Ser Ser Arg Pro Val Leu Leu Asn Gly Thr Tyr Asp  
305 310 315 320  
Val Gln Val Thr Ser Gly Gly Thr Phe Ile Gly Ile Gly Arg Lys Thr  
325 330 335  
Pro Asp Cys Gln Gly Asn Thr Lys Tyr Phe Arg Cys Lys Phe Cys Asn  
340 345 350  
Phe Thr Tyr Met Gly Asn Ser Ser Thr Glu Leu Glu Gln His Phe Leu  
355 360 365  
Gln Thr His Pro Asn Lys Ile Lys Ala Ser Leu Pro Ser Ser Glu Val  
370 375 380  
Ala Lys Pro Ser Glu Lys Asn Ser Asn Lys Ser Ile Pro Ala Leu Gln  
385 390 395 400  
Ser Ser Asp Ser Gly Asp Leu Gly Lys Trp Gln Asp Lys Ile Thr Val  
405 410 415  
Lys Ala Gly Asp Asp Thr Pro Val Gly Tyr Ser Val Pro Ile Lys Pro  
420 425 430  
Leu Asp Ser Ser Arg Gln Asn Gly Thr Glu Ala Thr Ser Tyr Tyr Trp  
435 440 445  
Cys Lys Phe Cys Ser Phe Ser Cys Glu Ser Ser Ser Ser Leu Lys Leu  
450 455 460  
Leu Glu His Tyr Gly Lys Gln His Gly Ala Val Gln Ser Gly Gly Leu  
465 470 475 480  
Asn Pro Glu Leu Asn Asp Lys Leu Ser Arg Gly Ser Val Ile Asn Gln  
485 490 495  
Asn Asp Leu Ala Lys Ser Ser Glu Gly Glu Thr Met Thr Lys Thr Asp  
500 505 510  
Lys Ser Ser Ser Gly Ala Lys Lys Lys Asp Phe Ser Ser Lys Gly Ala  
515 520 525  
Glu Asp Asn Met Val Thr Ser Tyr Asn Cys Gln Phe Cys Asp Phe Arg  
530 535 540  
Tyr Ser Lys Ser His Gly Pro Asp Val Ile Val Val Gly Pro Leu Leu  
545 550 555 560  
Arg His Tyr Gln Gln Leu His Asn Ile His Lys Cys Thr Ile Lys His  
565 570 575  
Cys Pro Phe Cys Pro Arg Gly Leu Cys Ser Pro Glu Lys His Leu Gly  
580 585 590  
Glu Ile Thr Tyr Pro Phe Ala Cys Arg Lys Ser Asn Cys Ser His Cys  
595 600 605  
Ala Leu Leu Leu Leu His Leu Ser Pro Gly Ala Ala Gly Ser Ser Arg  
610 615 620  
Val Lys His Gln Cys His Gln Cys Ser Phe Thr Thr Pro Asp Val Asp  
625 630 635 640  
Val Leu Leu Phe His Tyr Glu Ser Val His Glu Ser Gln Ala Ser Asp  
645 650 655  
Val Lys Gln Glu Ala Asn His Leu Gln Gly Ser Asp Gly Gln Gln Ser

				660					665					670			
Val	Lys	Glu	Ser	Lys	Glu	His	Ser	Cys	Thr	Lys	Cys	Asp	Phe	Ile	Thr		
		675						680					685				
Gln	Val	Glu	Glu	Glu	Ile	Ser	Arg	His	Tyr	Arg	Arg	Ala	His	Ser	Cys		
		690					695					700					
Tyr	Lys	Cys	Arg	Gln	Cys	Ser	Phe	Thr	Ala	Ala	Asp	Thr	Gln	Ser	Leu		
705					710				715						720		
Leu	Glu	His	Phe	Asn	Thr	Val	His	Cys	Gln	Glu	Gln	Asp	Ile	Thr	Thr		
				725					730						735		
Ala	Asn	Gly	Glu	Glu	Asp	Gly	His	Ala	Ile	Ser	Thr	Ile	Lys	Glu	Glu		
			740					745					750				
Pro	Lys	Ile	Asp	Phe	Arg	Val	Tyr	Asn	Leu	Leu	Thr	Pro	Asp	Ser	Lys		
		755					760					765					
Met	Gly	Glu	Pro	Val	Ser	Glu	Ser	Val	Val	Lys	Arg	Glu	Lys	Leu	Glu		
	770					775					780						
Glu	Lys	Asp	Gly	Leu	Lys	Glu	Lys	Val	Trp	Thr	Glu	Ser	Ser	Ser	Asp		
785					790					795					800		
Asp	Leu	Arg	Asn	Val	Thr	Trp	Arg	Gly	Ala	Asp	Ile	Leu	Arg	Gly	Ser		
			805					810							815		
Pro	Ser	Tyr	Thr	Gln	Ala	Ser	Leu	Gly	Leu	Leu	Thr	Pro	Val	Ser	Gly		
			820					825					830				
Thr	Gln	Glu	Gln	Thr	Lys	Thr	Leu	Arg	Asp	Ser	Pro	Asn	Val	Glu	Ala		
		835					840					845					
Ala	His	Leu	Ala	Arg	Pro	Ile	Tyr	Gly	Leu	Ala	Val	Glu	Thr	Lys	Gly		
	850					855				860							
Phe	Leu	Gln	Gly	Ala	Pro	Ala	Gly	Gly	Glu	Lys	Ser	Gly	Ala	Leu	Pro		
865					870				875						880		
Gln	Gln	Tyr	Pro	Ala	Ser	Gly	Glu	Asn	Lys	Ser	Lys	Asp	Glu	Ser	Gln		
			885					890							895		
Ser	Leu	Leu	Arg	Arg	Arg	Arg	Gly	Ser	Gly	Val	Phe	Cys	Ala	Asn	Cys		
		900					905					910					
Leu	Thr	Thr	Lys	Thr	Ser	Leu	Trp	Arg	Lys	Asn	Ala	Asn	Gly	Gly	Tyr		
	915						920					925					
Val	Cys	Asn	Ala	Tyr	Gly	Leu	Tyr	Gln	Lys	Leu	His	Ser	Thr	Pro	Arg		
	930					935				940							
Pro	Leu	Asn	Ile	Ile	Lys	Gln	Asn	Asn	Gly	Glu	Gln	Ile	Ile	Arg	Arg		
945					950					955					960		
Arg	Thr	Arg	Lys	Arg	Leu	Asn	Pro	Glu	Ala	Leu	Gln	Ala	Glu	Gln	Leu		
			965					970							975		
Asn	Lys	Gln	Gln	Arg	Gly	Ser	Asn	Glu	Glu	Gln	Val	Asn	Gly	Ser	Pro		
		980						985				990					
Leu	Glu	Arg	Arg	Ser	Glu	Asp	His	Leu	Thr	Glu	Ser	His	Gln	Arg	Glu		
	995						1000					1005					
Ile	Pro	Leu	Pro	Ser	Leu	Ser	Lys	Tyr	Glu	Ala	Gln	Gly	Ser	Leu	Thr		
	1010					1015					1020						
Lys	Ser	His	Ser	Ala	Gln	Gln	Pro	Val	Leu	Val	Ser	Gln	Thr	Leu	Asp		
1025					1030					1035					1040		
Ile	His	Lys	Arg	Met	Gln	Pro	Leu	His	Ile	Gln	Ile	Lys	Ser	Pro	Gln		
			1045					1050							1055		
Glu	Ser	Thr	Gly	Asp	Pro	Gly	Asn	Ser	Ser	Ser	Val	Ser	Glu	Gly	Lys		
		1060					1065					1070					
Gly	Ser	Ser	Glu	Arg	Gly	Ser	Pro	Ile	Glu	Lys	Tyr	Met	Arg	Pro	Ala		
	1075						1080					1085					
Lys	His	Pro	Asn	Tyr	Ser	Pro	Pro	Gly	Ser	Pro	Ile	Glu	Lys	Tyr	Gln		

1090 1095 1100  
 Tyr Pro Leu Phe Gly Leu Pro Phe Val His Asn Asp Phe Gln Ser Glu  
 1105 1110 1115 1120  
 Ala Asp Trp Leu Arg Phe Trp Ser Lys Tyr Lys Leu Ser Val Pro Gly  
 1125 1130 1135  
 Asn Pro His Tyr Leu Ser His Val Pro Gly Leu Pro Asn Pro Cys Gln  
 1140 1145 1150  
 Asn Tyr Val Pro Tyr Pro Thr Phe Asn Leu Pro Pro His Phe Ser Ala  
 1155 1160 1165  
 Val Gly Ser Asp Asn Asp Ile Pro Leu Asp Leu Ala Ile Lys His Ser  
 1170 1175 1180  
 Arg Pro Gly Pro Thr Ala Asn Gly Ala Ser Lys Glu Lys Thr Lys Ala  
 1185 1190 1195 1200  
 Pro Pro Asn Val Lys Asn Glu Gly Pro Leu Asn Val Val Lys Thr Glu  
 1205 1210 1215  
 Lys Val Asp Arg Ser Thr Gln Asp Glu Leu Ser Thr Lys Cys Val His  
 1220 1225 1230  
 Cys Gly Ile Val Phe Leu Asp Glu Val Met Tyr Ala Leu His Met Ser  
 1235 1240 1245  
 Cys His Gly Asp Ser Gly Pro Phe Gln Cys Ser Ile Cys Gln His Leu  
 1250 1255 1260  
 Cys Thr Asp Lys Tyr Asp Phe Thr Thr His Ile Gln Arg Gly Leu His  
 1265 1270 1275 1280  
 Arg Asn Asn Ala Gln Val Glu Lys Asn Gly Lys Pro Lys Glu  
 1285 1290

<210> 629  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<400> 629  
 nacgcgttcg ctgaggaggg aaccggtgcc agcaccttcc agctttccga gatctggatt  
 60  
 ggcattctca ttggcgctct taccttcacg gggtcgctgg tggcctgggg caagctctcg  
 120  
 ggcaaagtcg cttcaaagcc actgaccctg ccaggtcgta attggatcaa ccttggtctg  
 180  
 ctggtcgtta tcatcgctg cgggatctgg ttctccaatg tttctggtgg tatcgcgctg  
 240  
 ctgccgctgg cgctactgac cctggcctcg ctgttcctcg gcttccactt cgtcgccgct  
 300  
 atcgggtggcg cggatatgcc agtcgtcatt tcgatgctga acagctactc cggttgggca  
 360  
 gctgccttct ccgatttag tttgcacatc ccggtgctta tcgtcaccgg t  
 411

<210> 630  
 <211> 137  
 <212> PRT  
 <213> Homo sapiens

<400> 630  
 Xaa Ala Phe Ala Glu Glu Gly Thr Gly Ala Ser Thr Phe Gln Leu Ser

1                      5                      10                      15  
 Glu Ile Trp Ile Gly Ile Phe Ile Gly Ala Leu Thr Phe Thr Gly Ser  
                     20                      25                      30  
 Leu Val Ala Trp Gly Lys Leu Ser Gly Lys Val Ala Ser Lys Pro Leu  
                     35                      40                      45  
 Thr Leu Pro Gly Arg Asn Trp Ile Asn Leu Gly Leu Leu Val Val Ile  
                     50                      55                      60  
 Ile Ala Cys Gly Ile Trp Phe Ser Asn Val Ser Gly Gly Ile Ala Trp  
 65                      70                      75                      80  
 Leu Pro Leu Ala Leu Leu Thr Leu Ala Ser Leu Phe Leu Gly Phe His  
                     85                      90                      95  
 Phe Val Ala Ala Ile Gly Gly Ala Asp Met Pro Val Val Ile Ser Met  
                     100                      105                      110  
 Leu Asn Ser Tyr Ser Gly Trp Ala Ala Ala Phe Ser Gly Phe Ser Leu  
                     115                      120                      125  
 His Ile Pro Val Leu Ile Val Thr Gly  
                     130                      135

<210> 631  
 <211> 275  
 <212> DNA  
 <213> Homo sapiens

<400> 631  
 gccggccagc gcatggagga ggaggccatg aacggcgacc ggactgagag cgactggcag  
 60  
 gggctggtga gcgagtacct ggtgtgtaag aggaagctgg agagtaagaa ggaagccctg  
 120  
 ctgacccctc ccaaggagct ggacacctgt caacaggaaa gggaccagta caaactcatg  
 180  
 gccaatcagc tccgggagcg ccaccagtca ctgaagaaga agtaccgaga gctgattgat  
 240  
 ggagatccat cacttcctcc tgaaaaaagg aaaca  
 275

<210> 632  
 <211> 87  
 <212> PRT  
 <213> Homo sapiens

<400> 632  
 Met Glu Glu Glu Ala Met Asn Gly Asp Arg Thr Glu Ser Asp Trp Gln  
 1                      5                      10                      15  
 Gly Leu Val Ser Glu Tyr Leu Val Cys Lys Arg Lys Leu Glu Ser Lys  
                     20                      25                      30  
 Lys Glu Ala Leu Leu Ile Leu Ser Lys Glu Leu Asp Thr Cys Gln Gln  
                     35                      40                      45  
 Glu Arg Asp Gln Tyr Lys Leu Met Ala Asn Gln Leu Arg Glu Arg His  
                     50                      55                      60  
 Gln Ser Leu Lys Lys Lys Tyr Arg Glu Leu Ile Asp Gly Asp Pro Ser  
 65                      70                      75                      80  
 Leu Pro Pro Glu Lys Arg Lys  
                     85

<210> 633  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

<400> 633  
 nnacgcgtgg aagatctgct cgggcgccac cagttgaact acagcatcga atggcgctg  
 60  
 tcgggccagc cgttcctgac cgcacgcgcg nactgggtgg atgcggtggt taacgccgtc  
 120  
 gaacactatt ctgagctgac gccacagttg ctgaccaccg ggggcacctc agacggtcgc  
 180  
 tttatcgccc agatgggcnc gcaagtgggt gagctggggc cggccaacgc gacgatccat  
 240  
 aaggtcaacg aatgcgtaca cgcagccgac ttgcaactgc tcagccgcat gtaccagcgc  
 300  
 atcatggagc aactggtcgc atgatcacgc cagaaatgct gaccgggcgc tcgacagatc  
 360  
 acctggtgcc gctctggtaa accaccggtt gcagcccgcc gccgtaggcg cgttcctcgg  
 420

<210> 634  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 634  
 Xaa Arg Val Glu Asp Leu Leu Gly Arg His Gln Leu Asn Tyr Ser Ile  
 1 5 10 15  
 Glu Trp Arg Leu Ser Gly Gln Pro Phe Leu Thr Ala Arg Ala Xaa Leu  
 20 25 30  
 Val Asp Ala Val Val Asn Ala Val Glu His Tyr Ser Glu Leu Thr Pro  
 35 40 45  
 Gln Leu Leu Thr Thr Gly Gly Thr Ser Asp Gly Arg Phe Ile Ala Gln  
 50 55 60  
 Met Gly Xaa Gln Val Val Glu Leu Gly Pro Val Asn Ala Thr Ile His  
 65 70 75 80  
 Lys Val Asn Glu Cys Val His Ala Ala Asp Leu Gln Leu Leu Ser Arg  
 85 90 95  
 Met Tyr Gln Arg Ile Met Glu Gln Leu Val Ala  
 100 105

<210> 635  
 <211> 6918  
 <212> DNA  
 <213> Homo sapiens

<400> 635  
 nnccccaacc ggcagcccat cggcatcgtg ctcacgggtgc tgggagtggg ggtcctggac  
 60  
 ttcagcgccg atgccaccga ggggcccatc cgtgcctatc tgctggacgt ggtggacagc  
 120  
 gaggagcagg acatggccct caacatccac gccttctctg ccggcctcgg cggagccatc  
 180



ggctacgtgc tgggtgggct ggactggacc cagaccttcc tgggcagctg gttccggacc  
240  
cagaaccagg tgctcttctt ctttgccgcc atcatcttca cgggtgtccgt ggccctgcac  
300  
ctgttcagca tcgacgagga gcagtacagc ccgcagcagg agcgcagcgc tgaggagccc  
360  
ggcgccctgg atggggggcga gccgcacggc gtccctgcct tcccagacga ggtacagtgc  
420  
gagcacgagc tggccctgga ctacctggac gtggacatca tgcgcagcaa aagcgactcg  
480  
gcgttgacg tgccggacac cgcgctggac ctggagcccc agctgctgtt cctgcacgac  
540  
atcgagccct ccatcttcca cgacgcctcc taccctcgcca cccccgcag caccagccag  
600  
gagctcgcca agaccaagct gccccgcctg gccaccttcc tcaaggaagc cgccaaggag  
660  
gacgagacct tgctggataa tcaattgaat gaagctaaag tcccaaacgg aagtggctcc  
720  
cccacaaaag acgcccctcg cggctacacc aggggtggaca cgaagccctc ggccacgtcg  
780  
agctccatgc ggcggcgggc gcacgcgttc cgcaggcagg cctccagcac cttctcctac  
840  
tacggcaagc ttgggtccca ctgctaccgc taccggcgcg ccaacgccgt ggtgctgatc  
900  
aagccgtcgc gcagcatgag cgacctgtac gacatgcaga agcggcagcg gcagcaccgg  
960  
caccggaacc agagcggggc caccacctcc agcggggaca ccgagagtga ggagggggag  
1020  
ggcgagacca cgggtgcgct gctgtggctc tccatgctga agatgcccag ggagctgatg  
1080  
cggctgtgcc tctgccacct cctcacctgg ttctctgtca tcgccgaggc cgtgttctac  
1140  
accgacttca tgggcccagg catcttcgaa ggcgacccca agggccccctc gaactcgacc  
1200  
gcctggcaag cctacaacgc cggggctcaag atgggctgct ggggcctggt catttatgcc  
1260  
gccactggtg ctatttgttc agccctgtta cagaagtact tggacaacta cgacctgagc  
1320  
gtcaggggtga tctacgtgct ggggacgctg ggcttctctg tcggcacagc cgtgatggcc  
1380  
atgtttccca acgtctacgt cgccatggtc accatcagca ccatgggcat cgtctccatg  
1440  
agcatctcct actgcccgtg cgcctgtctg ggccagtacc atgacatcaa gcagtacatc  
1500  
caccacagcc ccgggaactc caagcgaggg tttggcatag attgtgcat cctgtcctgc  
1560  
caagtgtaca tctcgcagat cctggtggcc tctgcccttg ggggcgtggt cgacgccgtg  
1620  
gggactgtcc gcgtcatccc catggtggcc tctgtgggct ctttcctggg cttcctgacg  
1680  
gccacattcc tggatgatcta tcccagctg tcagaggagg ccaaggagga gcagaaaggc  
1740  
ctgtcttccc cgttggccgg cgaaggcagg gccggcggga acagcgaaaa gccacccgtg  
1800



ctgaagctca cgcggaagga gggcctgcag ggaccggtgg agacagagtc cgtggtctga  
1860  
gccgcactcc cgtttacaca cattccagcg ggcgggtggg cgggcgggcg ggcggcggg  
1920  
ccaggccatg ggcgggagca gagacaccgc ggaaccctgc agatgctgtg gccgacccg  
1980  
cagtgcgggc cagagccctt ccgcccccat agccacaatt cagtagtcgt agggtaggtt  
2040  
tgagctacta agcaaatacc aactaacca ctttttcgat aattaaaaga atcatttgaa  
2100  
atattttttt taattgaaaa agatatttta atttcagctc ttttattctg cagggtgtatt  
2160  
attctgcatg tttttaaatg atataaaaca tttatataga caataagcaa cttagaaaaa  
2220  
ataagatttt gcattttctaa aattataatt gaaaacaaaa tctgacattc tctgctaagt  
2280  
cttatctgaa tgcttcagat aatggtagtg tagtcagtga ctaaaatatt tttatcaaat  
2340  
ttcctctctg tagacgcctg caggatttga cgtctgtcag atctcgtcac attggctggt  
2400  
gccgcagctg ttggagagta tttttcttta tgattatttt agaaaaaaaa ttttcttttc  
2460  
cacaatgtgg ttctcttaga agaatgacgt atcttctttt cctcagcgag ttggacacat  
2520  
tgtgcccagg gcagccctgt ccttgggcag cgaccgcaca ccaaagctgg gaggaggctg  
2580  
gtccgggggg cctgggcaga agacagtgat ttgcaggggt ggctcccaga caccctgccc  
2640  
agggatgggc tgggcaccac ctgggggcgg agcgtgagct ccagacgagc tcctgcgctg  
2700  
gcgtgtgagt gtgtctgcgc ccagccatgt gaccctgctc gtcccgtctg aaggactctc  
2760  
ctaggaggcc aggttgcccc tccagacccc tcccaacgtc agggggaagg aaacgttgac  
2820  
tttcaactga ctttgattcg tctctaaacc atttgctggg gattcctgag agcagagctc  
2880  
ccagcgggcc ctgcctccca agtcccgcgc caaggctacc tcgggtgtgt ggatgtgcga  
2940  
gggcctcccc cgcttgcgaa ggggacatgc gtgctggaac ctgtcggaa tccatgcctt  
3000  
cctcgcctgc tcacctgctc gacgctggaa tcgggacagg tgcaaaggga cgcagacgtc  
3060  
tgggacagct aaggcccgtg tcaccggagg gctccgcaca gtcgttctgg tttcaacgaa  
3120  
taagcaaac tcgggcaagt actgcagcta tttggaaatg ttttccaaac cacagtctct  
3180  
ttagaactaa gcctatttga aacggtcggt gtaggcttac tgagatcagg agacagggag  
3240  
gccccgcaca tcacacagat aaagtcagac aattgtaatt aatacttttg ctgcctcaag  
3300  
ttgtttttta aataaagtac tttgaaatgc atgagaatca tgctgcaata tgatcattct  
3360  
agagcaaata tatatatata cgtatatata tttcaagatg aaactaaagc agtttttaaa  
3420

taaattactt gaattttctg tgtatttaaa ggaacgactg tttaatgtac ttgatgggcc  
3480  
tctgggtcttg ccgtgtctcc tgccgctggg ggcactttgt agattgtgtg tttgtgtccg  
3540  
ggtaggcagtt gggtagctgc tcacgcacgg tgtgtctgcc aggccacggg gtcccaggat  
3600  
cgtagagggc tgacttcaag acttcaagaa ctttttctgg atgtgtggaa acttgagaat  
3660  
ggccttgtga atctcgtgct tggacagggc aagtcgact actgaaagtg ctgccagctt  
3720  
tgctgcgagc cctccggcca gcgggagccc cgtgggctgg gcaactgtggc ccttcttctc  
3780  
tgggggacgg cacccttggc ttcctcacct cggccggggc tccgtggcag ctactctat  
3840  
gcaacttgat cctctagcgg ctttaagact gtagatcccc tctctgagac ctggctgtac  
3900  
ttgtcaggat ctgagggcg agctcccgtc ttagctgggt tctccggctt ctgctctga  
3960  
cgactataaa acagttggag gcaagaaagc agcggatgtg gggtagcagt ggcctgaccc  
4020  
gaatcaagat ccgacccaaa ccacaccaa tgtgggttca tctgggggcc accccttgcc  
4080  
tgaggcttcc caccctcatc tgaaggccca ggggccggat ccagggtca ccaaagccga  
4140  
ttcctcgcca gctgggagtg cagaagtctc agggcctggc tgcgacttga ttttaggag  
4200  
gaagaggggc ttcgcaaccc ccctctgaat agtgtgttaa cccttgagat cccagcctcg  
4260  
actaatctga agtaaggaca acaaaggcca ttcagtgcc tccacatggc cttgccacag  
4320  
tcactgtcag ggtatgaatg tgccggaagc cagtgccagc caggacagg cgtgactgtt  
4380  
gtgtgtctct cggtagcagg agtcgggtggc tgcacacttt gtagactcgt caagctgtca  
4440  
gcacttcagg tgtttgcaag caaagccctt cttagtgtgc aggtcagtgt gcagagccca  
4500  
aatgagggga ccgtaggggc tgggggtccag ggtcagtaga gtcggtttct ggagctgcct  
4560  
tcctgggagg caggtgtggg tgaccggggc tctggcgggt cgtgtggggc cggcctggcc  
4620  
acagcgggga ccaggtcacg acatcttttg cctcaacccc tcccctgcac tgagattatt  
4680  
tccagattgc actcacttga aaccgtccgt gtcgtcacct tgtgtcttaa gggaagccga  
4740  
gaagaagggc agacgggcag gctgtcttgt ctgcaaagcg ccattgcgcc cgcagcttgt  
4800  
gtgggtcagg ctgcagctcg ggtgtctgtg gcttctaacc ttgtacctca gacggatgca  
4860  
gtaacaaggc ggggctgggg acgccggtca gtgtcaaagg ggaggtgctc tggctgatag  
4920  
ccttgcccga gagggacgag gagggcgtgc ggggtgcccc tggggaagct ggccagccat  
4980  
ccagtgtga ggacgcagct ggagttgggc tcgtggcacc cttgggggtgt gggctgtgca  
5040

ggctggtggc ctgggtgcct ctgcacactg agtggagtgt caggcagggg gtgtcggttg  
5100  
gtcgagtctt gtgtaatgtg cgcagaccag ttaccaaact aggataatgt tggcttcatt  
5160  
tgtggtgggt ttgttcctta tacaagtcag ctaagtaaag actcttttaa cgagcttccc  
5220  
cttaacacat ggcagaagtt tccaggtgca ggaatgagag ctggcgggaa ggggcagagg  
5280  
ccgtgagctc tcagctgggc cggcctgcct gtgtcccctt tcctgggtct gtcggcagac  
5340  
tggcatcatg acgttccctg gtggctgaag agctagcttt ggagtgttgt tttctcact  
5400  
ctcaggcagg ggccttagct ggaatcctcc aacctgccac tgaacacgct agtgctgtgt  
5460  
gctgcctctt ggacacctgc ccttgaaagc ctcaggcccc tgggagaagc actctgtcca  
5520  
gtcctgtccc cgggggggag gcagggccac tgagccctcc tcagatggtt agtggttcc  
5580  
aacagccatc aggagtgttt cttgaatgcc ccaggtgtgg aggacttggc ctgtgaccac  
5640  
ctagaacccc agagctgaac aggaagccgt ccctgcagca acaagagggc tggaaggggg  
5700  
agctgcaggc caccctcggc tctcccactg ctggggcggt gatgttcggg tgacatgttt  
5760  
gaaaaatact cttaaagata ccaactgttc ccttatatgg ctaatggttt gtgcagccac  
5820  
cagcgatggc ggcccctatt agagaccagg tttgttaaaa cactaaatat tgctgtccac  
5880  
actagacatt aaccggcttc agaaaagatg gacacctttt cccacgctgt ttcgcttctt  
5940  
aactttggtc cagcttttagc caccacacag cgtgtgaggg actgctgctg cggagtcagc  
6000  
ctcgtttgtc cctccgctc ccaccagcac gcgcccctc tgagagacac cagctccctg  
6060  
cctccaagcc tgggtgccaca ggcttgtcgt gagggacccc tgcttccgag agctcctggg  
6120  
ggggttctgc ccttcaccac ctgggagagg tgtcagttca gttccgagtt gaacaaggcc  
6180  
cgtgcacaca gcatgttggg ggcccagccc aaagttcttg tcacctctc atgcaaagcc  
6240  
agccatcacc ctccggccag agctcaagggt ggccccttgg ccagcccctc cttgggtcct  
6300  
ccaggaggac tgagcacccc tcctagcggc atcccttgcc ctccacagtg ctgccagggg  
6360  
cacgtcgctc tgtgccgtgg actgagacca tcccctgggt acagaatgac ccgtttgttg  
6420  
gaaatgcctc gttgccagag aaactcccca ggcattctcg aacgaaacta tttagttcca  
6480  
ttgtgaactg gccacgggac agctttttat caactatta agttggagca ctgtaatcgc  
6540  
gcttgctgag ttagcagtgg tggtaagcgt gtgttaaaca cataatgtta cgttttagga  
6600  
gagagaggc gtaaggaagt gtcgtgtcgc tcatgactct cttctattag ttgggtaaca  
6660

gtggcctcat gtttgtgtct gtgtgtacac agagccctta ggttctgctc tgtttctttg  
6720  
ccaggtgaat gtttgtggca tgcgctgctg tccgcgcccc tctgtcctgc gcagggttca  
6780  
gctgtgcggc gccctgattt cctccatgca cacagaacct ccttgtgtct gtttctctgt  
6840  
tcctctgtgg ctgactcaat aaacttttcc ctctgaaaaa aaaaaaaaaa aaaaaaaaaa  
6900  
aaaaaaaaaa aaaaaaag  
6918

<210> 636  
<211> 619  
<212> PRT  
<213> Homo sapiens

<400> 636  
Xaa Pro Asn Arg Gln Pro Ile Gly Ile Val Leu Thr Val Leu Gly Val  
1 5 10 15  
Val Val Leu Asp Phe Ser Ala Asp Ala Thr Glu Gly Pro Ile Arg Ala  
20 25 30  
Tyr Leu Leu Asp Val Val Asp Ser Glu Glu Gln Asp Met Ala Leu Asn  
35 40 45  
Ile His Ala Phe Ser Ala Gly Leu Gly Gly Ala Ile Gly Tyr Val Leu  
50 55 60  
Gly Gly Leu Asp Trp Thr Gln Thr Phe Leu Gly Ser Trp Phe Arg Thr  
65 70 75 80  
Gln Asn Gln Val Leu Phe Phe Phe Ala Ala Ile Ile Phe Thr Val Ser  
85 90 95  
Val Ala Leu His Leu Phe Ser Ile Asp Glu Glu Gln Tyr Ser Pro Gln  
100 105 110  
Gln Glu Arg Ser Ala Glu Glu Pro Gly Ala Leu Asp Gly Gly Glu Pro  
115 120 125  
His Gly Val Pro Ala Phe Pro Asp Glu Val Gln Ser Glu His Glu Leu  
130 135 140  
Ala Leu Asp Tyr Pro Asp Val Asp Ile Met Arg Ser Lys Ser Asp Ser  
145 150 155 160  
Ala Leu His Val Pro Asp Thr Ala Leu Asp Leu Glu Pro Glu Leu Leu  
165 170 175  
Phe Leu His Asp Ile Glu Pro Ser Ile Phe His Asp Ala Ser Tyr Pro  
180 185 190  
Ala Thr Pro Arg Ser Thr Ser Gln Glu Leu Ala Lys Thr Lys Leu Pro  
195 200 205  
Arg Leu Ala Thr Phe Leu Lys Glu Ala Ala Lys Glu Asp Glu Thr Leu  
210 215 220  
Leu Asp Asn His Leu Asn Glu Ala Lys Val Pro Asn Gly Ser Gly Ser  
225 230 235 240  
Pro Thr Lys Asp Ala Leu Gly Gly Tyr Thr Arg Val Asp Thr Lys Pro  
245 250 255  
Ser Ala Thr Ser Ser Ser Met Arg Arg Arg Arg His Ala Phe Arg Arg  
260 265 270  
Gln Ala Ser Ser Thr Phe Ser Tyr Tyr Gly Lys Leu Gly Ser His Cys  
275 280 285  
Tyr Arg Tyr Arg Arg Ala Asn Ala Val Val Leu Ile Lys Pro Ser Arg

290	295	300
Ser Met Ser Asp Leu Tyr	Asp Met Gln Lys Arg	Gln Arg Gln His Arg
305	310	315
His Arg Asn Gln Ser Gly	Ala Thr Thr Ser Ser	Gly Asp Thr Glu Ser
	325	330
Glu Glu Gly Glu Gly Glu	Thr Thr Val Arg Leu	Leu Trp Leu Ser Met
	340	345
Leu Lys Met Pro Arg Glu	Leu Met Arg Leu Cys	Leu Cys His Leu Leu
	355	360
Thr Trp Phe Ser Val Ile	Ala Glu Ala Val Phe	Tyr Thr Asp Phe Met
	370	375
Gly Gln Val Ile Phe Glu	Gly Asp Pro Lys Ala	Pro Ser Asn Ser Thr
385	390	395
Ala Trp Gln Ala Tyr Asn	Ala Gly Val Lys Met	Gly Cys Trp Gly Leu
	405	410
Val Ile Tyr Ala Ala Thr	Gly Ala Ile Cys Ser	Ala Leu Leu Gln Lys
	420	425
Tyr Leu Asp Asn Tyr Asp	Leu Ser Val Arg Val	Ile Tyr Val Leu Gly
	435	440
Thr Leu Gly Phe Ser Val	Gly Thr Ala Val Met	Ala Met Phe Pro Asn
	450	455
Val Tyr Val Ala Met Val	Thr Ile Ser Thr Met	Gly Ile Val Ser Met
465	470	475
Ser Ile Ser Tyr Cys Pro	Tyr Ala Leu Leu Gly	Gln Tyr His Asp Ile
	485	490
Lys Gln Tyr Ile His His	Ser Pro Gly Asn Ser	Lys Arg Gly Phe Gly
	500	505
Ile Asp Cys Ala Ile Leu	Ser Cys Gln Val Tyr	Ile Ser Gln Ile Leu
	515	520
Val Ala Ser Ala Leu Gly	Gly Val Val Asp Ala	Val Gly Thr Val Arg
	530	535
Val Ile Pro Met Val Ala	Ser Val Gly Ser Phe	Leu Gly Phe Leu Thr
545	550	555
Ala Thr Phe Leu Val Ile	Tyr Pro Asp Val Ser	Glu Glu Ala Lys Glu
	565	570
Glu Gln Lys Gly Leu Ser	Ser Pro Leu Ala Gly	Glu Gly Arg Ala Gly
	580	585
Gly Asn Ser Glu Lys Pro	Thr Val Leu Lys Leu	Thr Arg Lys Glu Gly
	595	600
Leu Gln Gly Pro Val Glu	Thr Glu Ser Val Val	
610	615	

&lt;210&gt; 637

&lt;211&gt; 370

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 637

ngaaaaacag gatgaatccc gtatcattct taagcccgaa aagtactgaa tgcgtcttc  
60

tctcgatcgg tgatgatctg gaaaggaaaa atcatcgtga ctactacatc acccgctact  
120

acgcaaagac cgtcagttgg caggaaagtt ggttcctggt cccttaatcc atggtgtttt  
180

tgtaggccct tattatTTTT cggaatgggt cggtttattg cgattccagt attcctcact  
 240  
 gtgccgaata tcattaatat cggaatccaa gccgcggtgg tggcgattat ggccttcggt  
 300  
 atgaccttcg tcatcggtac ctccggcatt gatttgtctg tgggttcggt cgcagctctt  
 360  
 tcagccatgg  
 370

<210> 638  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 638  
 Met Ile Trp Lys Gly Lys Ile Ile Val Thr Thr Thr Ser Pro Ala Thr  
 1 5 10 15  
 Thr Gln Arg Pro Ser Val Gly Arg Lys Val Gly Ser Trp Ser Leu Asn  
 20 25 30  
 Pro Trp Cys Phe Cys Arg Pro Leu Leu Phe Phe Gly Met Val Arg Phe  
 35 40 45  
 Ile Ala Ile Pro Val Phe Leu Thr Val Pro Asn Ile Ile Asn Ile Gly  
 50 55 60  
 Ile Gln Ala Ala Val Val Ala Ile Met Ala Phe Gly Met Thr Phe Val  
 65 70 75 80  
 Ile Val Thr Ser Gly Ile Asp Leu Ser Val Gly Ser Val Ala Ala Leu  
 85 90 95  
 Ser Ala Met

<210> 639  
 <211> 330  
 <212> DNA  
 <213> Homo sapiens

<400> 639  
 nacgcgtcga tgggcaacta catcttcagt cgggatgccc tggtcgaggc actcttcgca  
 60  
 gactcccagt ccgctgagtc gcgtcatgac atgggtggcg acatcatccc gagattcgtc  
 120  
 gaggccgggg acgcgcaggt ctacgacttc tgtgacaacc aggtgcccgg aaccaccgag  
 180  
 aaggatcggg actactggcg ggacgtggga actatcgatg cctaccacga cgcgcacatg  
 240  
 gacctcgtgt cggtggaacc ggagttcaac ctctacaacc ccgactggcc gatctggagc  
 300  
 atccaggaac aggcaccggg agcgaaattt  
 330

<210> 640  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 640  
 Xaa Ala Ser Met Gly Asn Tyr Ile Phe Ser Arg Asp Ala Leu Val Glu  
 1 5 10 15  
 Ala Leu Phe Ala Asp Ser Gln Ser Ala Glu Ser Arg His Asp Met Gly  
 20 25 30  
 Gly Asp Ile Ile Pro Arg Phe Val Glu Ala Gly Asp Ala Gln Val Tyr  
 35 40 45  
 Asp Phe Cys Asp Asn Gln Val Pro Gly Thr Thr Glu Lys Asp Arg Asp  
 50 55 60  
 Tyr Trp Arg Asp Val Gly Thr Ile Asp Ala Tyr His Asp Ala His Met  
 65 70 75 80  
 Asp Leu Val Ser Val Glu Pro Glu Phe Asn Leu Tyr Asn Pro Asp Trp  
 85 90 95  
 Pro Ile Trp Ser Ile Gln Glu Gln Ala Pro Gly Ala Lys Phe  
 100 105 110

<210> 641  
 <211> 491  
 <212> DNA  
 <213> Homo sapiens

<400> 641  
 cgctgaccg ggcggagaa cgtgcgcaag atcctcatgg gcgagcacca cctcgtgagc  
 60  
 accgagtggc ctcgcagcac ccgcatgttg ctgggccccca acacggtgtc caattccatt  
 120  
 ggcgacatcc accgcaacaa ggcgaaggtc ttctccaaga tcttcagcca cgaggccctg  
 180  
 gagagttacc tgcccaagat ccagctggtg atccaggaca cactgcgcgc ctggagcagc  
 240  
 caccctcgagg ccatcaacgt gtaccaggag ggcgagaagc tgaccttcg catggccatc  
 300  
 cgggtgctgc tgggcttcag catccctgag gaggaccttg ggcacctctt tgaggtctac  
 360  
 cagcagtttg tggacaatgt cttctccctg cctgtcgacc tgcccttcag tggctaccgg  
 420  
 cggggcattc aggctcggca gatcctgcag aaggggctgg agaaggccat ccggggagaag  
 480  
 ctgcagtga c  
 491

<210> 642  
 <211> 163  
 <212> PRT  
 <213> Homo sapiens

<400> 642  
 Arg Val Thr Gly Ala Glu Asn Val Arg Lys Ile Leu Met Gly Glu His  
 1 5 10 15  
 His Leu Val Ser Thr Glu Trp Pro Arg Ser Thr Arg Met Leu Leu Gly  
 20 25 30  
 Pro Asn Thr Val Ser Asn Ser Ile Gly Asp Ile His Arg Asn Lys Arg  
 35 40 45  
 Lys Val Phe Ser Lys Ile Phe Ser His Glu Ala Leu Glu Ser Tyr Leu

50	55	60
Pro Lys Ile Gln Leu Val	Ile Gln Asp Thr Leu Arg Ala Trp Ser Ser	
65	70	75
His Pro Glu Ala Ile Asn Val Tyr Gln Glu Ala Gln Lys Leu Thr Phe		80
	85	90
Arg Met Ala Ile Arg Val Leu Leu Gly Phe Ser Ile Pro Glu Glu Asp		95
	100	105
Leu Gly His Leu Phe Glu Val Tyr Gln Gln Phe Val Asp Asn Val Phe		110
	115	120
Ser Leu Pro Val Asp Leu Pro Phe Ser Gly Tyr Arg Arg Gly Ile Gln		125
	130	135
Ala Arg Gln Ile Leu Gln Lys Gly Leu Glu Lys Ala Ile Arg Glu Lys		140
	145	150
Leu Gln Cys		155
		160

<210> 643  
 <211> 628  
 <212> DNA  
 <213> Homo sapiens

<400> 643  
 nagatctttg acatctacgt ggtcaccgct gactacctgc ccctaggggc tgagcaggat  
 60  
 gccatcacgc tgcgggaagg ccagtatgtg gaggtcctgg atgcagccca cccactgcgc  
 120  
 tggcttgctc gcaccaagcc caccaagtcc agcccctcac ggcagggctg ggtgtcacca  
 180  
 gcctacctgg acaggaggct caagctgtca cctgagtggg gggccgctga ggcccctgag  
 240  
 ttccctgggg aggtctgtgtc tgaagacgaa tacaaggcaa ggctgagctc tgtgatccag  
 300  
 gagctgctga gttctgagca ggccttcgtg gaggagctgc agttcctgca gagccaccac  
 360  
 ctgcagcacc tggagcgtg cccccacgtg cccatagctg tggccggcca gaaggcagtc  
 420  
 atcttccgca atgtgcggga catcgccgc ttccacagca gcttcctgca ggagttgcag  
 480  
 cagtgcgaca cggacgacga cgtggccatg tgcttcatca agaaccaggc ggcctttgag  
 540  
 cagtacctgg agttcctggt gggacgtgtg caggctgagt cggtggctgt cagcacggcc  
 600  
 atccaggagt tctacaagaa atacgcgt  
 628

<210> 644  
 <211> 209  
 <212> PRT  
 <213> Homo sapiens

<400> 644  
 Xaa Ile Phe Asp Ile Tyr Val Val Thr Ala Asp Tyr Leu Pro Leu Gly  
 1 5 10 15  
 Ala Glu Gln Asp Ala Ile Thr Leu Arg Glu Gly Gln Tyr Val Glu Val



```
<210> 645
<211> 417
<212> DNA
<213> Homo sapiens
```

```
<400> 645
atccataggc attgccagag tattcacttc ctgttggagg cacacagggg agaggcctgt
60
gaggggaagg gcatcaatgc agggctgggg tgtgggaagg tctgcagggc tggcaatggg
120
caagctcagg aatggtgggg gagacagttg gagccacggc agggacaatg gagctcagaa
180
ggtccctctg tcatcccttt tggaacccat tgatctggaa aatttggggc agtgtccttt
240
tccgtaggta ctggaggcac tggcttgaca tactacagcc ctcccaggag gcccagaagg
300
tagatgttat aactaccccc attttccaga tgaagaaact gagcctctgg gatctgcgga
360
agctcccaga gctggagcag ttagtccctg ggcctacac tcacagcaca gtttccc
417
```

```
<210> 646
<211> 95
<212> PRT
<213> Homo sapiens
```

<400> 646  
Met Val Gly Glu Thr Val Gly Ala Thr Ala Gly Thr Met Glu Leu Arg

```

      1             5             10             15
Arg Ser Leu Cys His Pro Phe Trp Asn Pro Leu Ile Trp Lys Ile Trp
      20             25             30
Gly Ser Val Leu Phe Arg Arg Tyr Trp Arg His Trp Leu Asp Ile Leu
      35             40             45
Gln Pro Ser Gln Glu Ala Gln Lys Val Asp Val Ile Thr Thr Pro Ile
      50             55             60
Phe Gln Met Lys Lys Leu Ser Leu Trp Asp Leu Arg Lys Leu Pro Glu
      65             70             75             80
Leu Glu Gln Leu Val Pro Gly Pro Tyr Thr His Ser Thr Val Ser
      85             90             95

```

<210> 647  
 <211> 421  
 <212> DNA  
 <213> Homo sapiens

```

<400> 647
acgcgtttcg gttcttgagc gcttccacca attcagcggg ggtgagcggc ccctgtgcat
60
cgcgacagcag ggtgatcaga taggcgatat ccgcctcggt cagttgcacg gtgtcggttat
120
cggtagccat gcgtggcgaa ctcccttggc atgggaaaat cgggtgaggc caacggggcac
180
agcaacagga cgtgtccctt gcggcacgtg gcaacacgtc agtatagcgc gtttccgccc
240
ggatttccgt tgaatgaagg caagaagtcg ggcacgcac cacctgctac cgctcggtgg
300
tacgatagcc gcggcgccac caggttggct acattccaaa cgcaacgcag gaacccgcat
360
gaacagcgtt ttctgcaaca aacccttat gacgctggct ctcgggcatt tcagtgtcga
420
C
421

```

<210> 648  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

```

<400> 648
Met Gly Lys Ser Gly Glu Ala Asn Gly His Ser Asn Arg Thr Cys Pro
      1             5             10             15
Leu Arg His Val Ala Thr Arg Gln Tyr Ser Ala Phe Pro Pro Gly Phe
      20             25             30
Pro Leu Asn Glu Gly Lys Lys Ser Gly Thr His Pro Pro Ala Thr Ala
      35             40             45
Arg Trp Tyr Asp Ser Arg Gly Ala Thr Arg Leu Ala Thr Phe Gln Thr
      50             55             60
Gln Arg Arg Asn Pro His Glu Gln Arg Phe Ser Gln Gln Thr Pro Tyr
      65             70             75             80
Asp Ala Gly Ser Arg Ala Phe Gln Cys Arg
      85             90

```

<210> 649  
 <211> 563  
 <212> DNA  
 <213> Homo sapiens

<400> 649  
 cgcaacatgc ataaacacat gtgctcctcc gagactcagc tacttccttt gccctctctg  
 60  
 gacctcagtg tccaggcttg tgcatttagg ggctcagggt tgggctctgt gcctatgagc  
 120  
 cagtctatgt gtgcactgtc tgtctgtctg tccgtctgcc agcaaccttc aaggccccag  
 180  
 gaggggaagg caccaatgga aggtgggggc agggaaggag gtagcggtga caagttccaa  
 240  
 tgtctggctt tccctcctgg aaacccccgag ctggggctgg ccccccttc ccttcctgtc  
 300  
 tctctcgctc aagcacgtcc cttctaagag cccctctctg cagacgcccc cagtgggaacc  
 360  
 aagcctagat tcgctgccaa gaaggccgac attttttaga cttgccacgt taaaggggccc  
 420  
 tgcacaggca cgcactcaaa tccccccctc catgtcctcc gcctgtgcac attcaggcaa  
 480  
 cccgaaacac acaaagacac ggttggacac agcggccacc tgtgcacaca ggaggtagca  
 540  
 catggagcgc atctgacccc ggg  
 563

<210> 650  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 650  
 Met His Lys His Met Cys Ser Ser Glu Thr Gln Leu Leu Pro Leu Pro  
 1 5 10 15  
 Ser Leu Asp Leu Ser Val Gln Ala Cys Ala Phe Arg Gly Ser Gly Leu  
 20 25 30  
 Gly Ser Val Pro Met Ser Gln Ser Met Cys Ala Leu Ser Val Cys Leu  
 35 40 45  
 Ser Val Cys Gln Gln Pro Ser Arg Pro Gln Glu Gly Lys Ala Pro Met  
 50 55 60  
 Glu Gly Gly Gly Arg Glu Gly Gly Ser Val Asp Lys Phe Gln Cys Leu  
 65 70 75 80  
 Ala Phe Pro Pro Gly Asn Pro Glu Leu Gly Leu Ala Pro Pro Ser Leu  
 85 90 95  
 Pro Val Ser Leu Ala Gln Ala Arg Pro Phe  
 100 105

<210> 651  
 <211> 351  
 <212> DNA  
 <213> Homo sapiens

<400> 651

gaattcttca acaagctctc ctgctctagg atcaaggata gacctataca aggtccaaac  
60  
cataatggag tccatggggt caaagttatc tcctggagct cagcagttga tggatatggt  
120  
taggtgtcag cagcggaatt gtattcccat tggagagcag cttcagtcgg tgttgggcaa  
180  
ttctggatac aagcatatga ttggactaca atcctcatct accttaggaa ccttaaacia  
240  
gtcgtcctcc acaccttttc cttttagaac tggattgaca tctgggaacg tgactgaaaa  
300  
cttacaagcg tacattgata aaagtacaca actgcctggt ggagagaatt c  
351

<210> 652  
<211> 95  
<212> PRT  
<213> Homo sapiens

<400> 652  
Met Glu Ser Met Gly Ser Lys Leu Ser Pro Gly Ala Gln Gln Leu Met  
1 5 10 15  
Asp Met Val Arg Cys Gln Gln Arg Asn Cys Ile Pro Ile Gly Glu Gln  
20 25 30  
Leu Gln Ser Val Leu Gly Asn Ser Gly Tyr Lys His Met Ile Gly Leu  
35 40 45  
Gln Ser Ser Ser Thr Leu Gly Thr Leu Asn Lys Ser Ser Ser Thr Pro  
50 55 60  
Phe Pro Phe Arg Thr Gly Leu Thr Ser Gly Asn Val Thr Glu Asn Leu  
65 70 75 80  
Gln Ala Tyr Ile Asp Lys Ser Thr Gln Leu Pro Gly Gly Glu Asn  
85 90 95

<210> 653  
<211> 399  
<212> DNA  
<213> Homo sapiens

<400> 653  
nncccggtg gggctggggt ggggccagca tcagaggagg acatgaccaa gctgtgcaac  
60  
caccggcgga aagctgttgc tatggcaact ctgtaccgca gcatggagac cacctgctca  
120  
cactcttctc ctggagaggg agcgagcccc caaatgttcc acactgtgtc cccagggccc  
180  
ccctctgccc gccctccctg tcgagttcct cctacaactc cacttaatgg gggctctggc  
240  
tccttcccc cagaaccacc ctgagtttcc caggcctttc ccactctagc aggccctggg  
300  
gggcttttcc cccaagggt tgctgaccca gtcccttctg ggggcagtag cagcccccg  
360  
ttcctcccaa ggggcaatgc cccctctcca gccccacct  
399

<210> 654

<211> 133  
 <212> PRT  
 <213> Homo sapiens

<400> 654  
 Xaa Pro Gly Gly Ala Gly Val Gly Pro Ala Ser Glu Glu Asp Met Thr  
 1 5 10 15  
 Lys Leu Cys Asn His Arg Arg Lys Ala Val Ala Met Ala Thr Leu Tyr  
 20 25 30  
 Arg Ser Met Glu Thr Thr Cys Ser His Ser Ser Pro Gly Glu Gly Ala  
 35 40 45  
 Ser Pro Gln Met Phe His Thr Val Ser Pro Gly Pro Pro Ser Ala Arg  
 50 55 60  
 Pro Pro Cys Arg Val Pro Pro Thr Thr Pro Leu Asn Gly Gly Pro Gly  
 65 70 75 80  
 Ser Leu Pro Pro Glu Pro Pro Ser Val Ser Gln Ala Phe Pro Thr Leu  
 85 90 95  
 Ala Gly Pro Gly Gly Leu Phe Pro Pro Arg Leu Ala Asp Pro Val Pro  
 100 105 110  
 Ser Gly Gly Ser Ser Ser Pro Arg Phe Leu Pro Arg Gly Asn Ala Pro  
 115 120 125  
 Ser Pro Ala Pro Pro  
 130

<210> 655  
 <211> 368  
 <212> DNA  
 <213> Homo sapiens

<400> 655  
 tgaaggaaat tctctatggc ttgtgttcat catgtagaac agcccatgag gagaatagga  
 60  
 gatgaggtgg gaagtgcact gggatctggg ggaagaagcc cgggggttcaa gactcagcta  
 120  
 ctgactgcat ggtgtcaaag gattcgggca tcctctctga ggctgagtct tcagatgaca  
 180  
 gtgagaacag ggacacctgc cctgcccttc tcacggggcg tgtgggcacc catgagcatg  
 240  
 cttgacaaat gcaagggtgcc atacaaacag gaactgcaca atctcaccgc ccggcctact  
 300  
 cagcattggt atttttacct ttacatctat atgaagatgt agttccattc cttttaactg  
 360  
 ttgttttc  
 368

<210> 656  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 656  
 Met Ala Cys Val His His Val Glu Gln Pro Met Arg Arg Ile Gly Asp  
 1 5 10 15  
 Glu Val Gly Ser Ala Leu Gly Ser Gly Gly Arg Ser Pro Gly Phe Lys

20 25 30  
 Thr Gln Leu Leu Thr Ala Trp Cys Gln Arg Ile Arg Ala Ser Ser Leu  
 35 40 45  
 Arg Leu Ser Leu Gln Met Thr Val Arg Thr Gly Thr Pro Ala Leu Pro  
 50 55 60  
 Phe Ser Arg Gly Val Trp Ala Pro Met Ser Met Leu Asp Lys Cys Lys  
 65 70 75 80  
 Val Pro Tyr Lys Gln Glu Leu His Asn Leu Thr Ala Arg Pro Thr Gln  
 85 90 95  
 His Cys Tyr Phe Tyr Leu Tyr Ile Tyr Met Lys Met  
 100 105

&lt;210&gt; 657

&lt;211&gt; 330

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 657

gtcgaccacg gcatgaaaaa gccgggggatg atcctcatca acaaccctg gggcgagtcc  
 60  
 aacgagggcgg gcttcaagcg cgccctcgaa gagcgtggca tggccaacgc cgggtgctgag  
 120  
 cgtattcagg acagcgacct ggacgtggtg ccgcaattga ccccgctga aaaacgccgg  
 180  
 tgccgacacc ttgctgatgg tcggcaacgt cgcccttcg gcacaggtgg tcaagtcctt  
 240  
 ggaccgcatg ggttgggacg tgctgtggt gtctcactgg gggccggccg gnggtcgctt  
 300  
 tggcgagctg gcggggccta acgcttctcg  
 330

&lt;210&gt; 658

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 658

Met Lys Lys Pro Gly Met Ile Leu Ile Asn Asn Pro Trp Gly Glu Ser  
 1 5 10 15  
 Asn Glu Ala Gly Phe Lys Arg Ala Leu Glu Glu Arg Gly Met Ala Asn  
 20 25 30  
 Ala Gly Val Glu Arg Ile Gln Asp Ser Asp Leu Asp Val Val Pro Gln  
 35 40 45  
 Leu Thr Pro Pro Glu Lys Arg Arg Cys Arg His Leu Ala Asp Gly Arg  
 50 55 60  
 Gln Arg Arg Pro Phe Gly Thr Gly Gly Gln Val Pro Gly Pro His Gly  
 65 70 75 80  
 Leu Gly Arg Ala Cys Gly Val Ser Leu Gly Ala Gly Arg Xaa Ser Leu  
 85 90 95  
 Trp Arg Ala Gly Gly Ala  
 100

&lt;210&gt; 659

&lt;211&gt; 1505

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 659

gccaggatca tgtccaccac cacatgccaa gtggtggcgt tcctcctgtc catcctgggg  
60  
ctggccggct gcatcgcggc caccgggatg gacatgtgga gcaccagga cctgtacgac  
120  
aaccccgta cctccgtgtt ccagtacgaa gggctctgga ggagctgcgt gaggcagagt  
180  
tcaggcttca ccgaatgcag gccctatttc accatcctgg gacttccagc catgctgcag  
240  
gcagtgcgag ccctgatgat cgtaggcatc gtccctgggtg ccattggcct cctggtatcc  
300  
atctttgccc tgaaatgcat ccgcattggc agcatggagg actctgcaa agccaacatg  
360  
aactgacct ccgggatcat gttcattgtc tcaggctctt gtgcaattgc tggagtgtct  
420  
gtgtttgcca acatgctggt gactaacttc tggatgtcca cagctaacat gtacaccggc  
480  
atgggtggga tgggtgcagac tgttcagacc aggtacacat ttgggtgcggc tctgttcgtg  
540  
ggctgggtcg ctggaggcct cacactaatt gggggtgtga tgatgtgcat cgcctgccgg  
600  
ggcctggcac cagaagaaac caactacaaa gccgtttctt atcatgcctc aggccacagt  
660  
gttgccata agcctggagg cttcaaggcc agcactggct ttgggtccaa caccaaaaac  
720  
aagaagatat acgatggagg tgcccgaca gaggacgagg tacaatctta tccttccaag  
780  
cacgactatg tgtaatgtc taagacctc cagcacgggc ggaagaaact cccggagagc  
840  
tcacccaaaa aacaaggaga tcccatctag atttcttctt gcttttgact cacagctgga  
900  
agttagaaaa gcctcgattt catctttgga gaggccaagt ggtcttagcc tcagtctctg  
960  
tctctaaata ttccaccata aaacagctga gttatttatg aattagaagc tatagctcac  
1020  
atcttcaatc ctctatttct ttttttaaata ataactttct actctgatga gagaatgtgg  
1080  
ttttaatctc tctctcacat tttgatgatt tagacagact cccctcttc ctctagtca  
1140  
ataaacccat tgatgatcta tttcccagct tatccccaag aaaacttttg aaaggaaaga  
1200  
gtagacccaa agatgttatt ttctgctgtt tgaattttgt ctccccaccc ccaacttggc  
1260  
tagtaataaa cacttactga agaagaagca ataagagaaa gatatttgta atctctccag  
1320  
cccatgatct cggttttctt acactgtgat cttaaaagtt accaaaccaa agtcattttc  
1380  
agtttgaggc aaccaaacct ttctactgct gttgacatct tcttattaca gcaacaccat  
1440  
tctaggagtt tcctgagctc tccactggag tcctccctt ctgtcgtctt ctgcagcgg  
1500

taccc  
1505

<210> 660  
<211> 261  
<212> PRT  
<213> Homo sapiens

<400> 660  
Met Ser Thr Thr Thr Cys Gln Val Val Ala Phe Leu Leu Ser Ile Leu  
1 5 10 15  
Gly Leu Ala Gly Cys Ile Ala Ala Thr Gly Met Asp Met Trp Ser Thr  
20 25 30  
Gln Asp Leu Tyr Asp Asn Pro Val Thr Ser Val Phe Gln Tyr Glu Gly  
35 40 45  
Leu Trp Arg Ser Cys Val Arg Gln Ser Ser Gly Phe Thr Glu Cys Arg  
50 55 60  
Pro Tyr Phe Thr Ile Leu Gly Leu Pro Ala Met Leu Gln Ala Val Arg  
65 70 75 80  
Ala Leu Met Ile Val Gly Ile Val Leu Gly Ala Ile Gly Leu Leu Val  
85 90 95  
Ser Ile Phe Ala Leu Lys Cys Ile Arg Ile Gly Ser Met Glu Asp Ser  
100 105 110  
Ala Lys Ala Asn Met Thr Leu Thr Ser Gly Ile Met Phe Ile Val Ser  
115 120 125  
Gly Leu Cys Ala Ile Ala Gly Val Ser Val Phe Ala Asn Met Leu Val  
130 135 140  
Thr Asn Phe Trp Met Ser Thr Ala Asn Met Tyr Thr Gly Met Gly Gly  
145 150 155 160  
Met Val Gln Thr Val Gln Thr Arg Tyr Thr Phe Gly Ala Ala Leu Phe  
165 170 175  
Val Gly Trp Val Ala Gly Gly Leu Thr Leu Ile Gly Gly Val Met Met  
180 185 190  
Cys Ile Ala Cys Arg Gly Leu Ala Pro Glu Glu Thr Asn Tyr Lys Ala  
195 200 205  
Val Ser Tyr His Ala Ser Gly His Ser Val Ala Tyr Lys Pro Gly Gly  
210 215 220  
Phe Lys Ala Ser Thr Gly Phe Gly Ser Asn Thr Lys Asn Lys Lys Ile  
225 230 235 240  
Tyr Asp Gly Gly Ala Arg Thr Glu Asp Glu Val Gln Ser Tyr Pro Ser  
245 250 255  
Lys His Asp Tyr Val  
260

<210> 661  
<211> 451  
<212> DNA  
<213> Homo sapiens

<400> 661  
nnacgcgtgt agtttgtgta tcggcgcgga actcgccgcg tctgatctcg aggagcttcc  
60  
cccatggacg agattttaac cttgcttgcc ggaggcggtg acgacgagcc agagtggcat  
120



gacaaggcat tatgtgcca gactgatccg gaggcattct tccctgaaaa ggggtggatcc  
 180  
 acccgtgagg ccaagcgcat ctgtgagtc tgtgaggctcc gccaggagtg cttggagtac  
 240  
 gcccttgca atgacgagag gtctggaatc tggggcggat tgtccgagat ggagaggcgt  
 300  
 cggctgca agcgggcgtg acctgacgtc ggagcgcggt tattgacacg gcccggtaaa  
 360  
 atgccctgtc tgcccgggat ggctgtctgc acgatgcggc atatgcatg atcgacagc  
 420  
 tgggtgtcat cccgtgctcc atgacgtcga c  
 451

<210> 662  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 662  
 Met Asp Glu Ile Leu Thr Leu Leu Ala Gly Gly Gly Asp Asp Glu Pro  
 1 5 10 15  
 Glu Trp His Asp Lys Ala Leu Cys Ala Gln Thr Asp Pro Glu Ala Phe  
 20 25 30  
 Phe Pro Glu Lys Gly Gly Ser Thr Arg Glu Ala Lys Arg Ile Cys Glu  
 35 40 45  
 Ser Cys Glu Val Arg Gln Glu Cys Leu Glu Tyr Ala Leu Ala Asn Asp  
 50 55 60  
 Glu Arg Phe Gly Ile Trp Gly Gly Leu Ser Glu Met Glu Arg Arg Arg  
 65 70 75 80  
 Leu Arg Lys Arg Ala  
 85

<210> 663  
 <211> 552  
 <212> DNA  
 <213> Homo sapiens

<400> 663  
 ctcgagcgtc tcgacgccga cgccgcccag ggagccaagg aagacctctc gcagcgcgac  
 60  
 ccctacgacg tgctcgtcgt aggggcgggt cccgcccgtg ccgcggccgc cgtgtacgcg  
 120  
 gctcgttaagg gcattcgcac cgccatggtc gggctctcga tcggcggccca ggtactcgat  
 180  
 accgaggcca tcgacaacct catctcgggt ccgcacacca ccggctccgcg tctggccgac  
 240  
 gccctccgca gccacgtcaa cgactacaac attgacgtta ttgagcgtca gaccgccagc  
 300  
 gccatagaga ccaccggcgg tatgaccacc gtgcatctga ccgacggcga cctgcgggcg  
 360  
 cgctcagtca tcgtggccac cgggtgccgc tggcgcaacc ttggcgtacc tggcgaggag  
 420  
 gaataccgca ccaaggggtg gacctactgc ccgcactgcg atggcccgtc attcacaggc  
 480

aaaaagggtgg ccgtcgtcgg aggtggaaac tccggtattg aggccgctat cgacctcgcc

540

ggcgtcgtcg ac

552

<210> 664

<211> 184

<212> PRT

<213> Homo sapiens

<400> 664

Leu	Glu	Arg	Leu	Asp	Ala	Asp	Ala	Ala	Gln	Gly	Ala	Lys	Glu	Asp	Leu
1				5					10					15	
Ser	Gln	Arg	Asp	Pro	Tyr	Asp	Val	Leu	Val	Val	Gly	Ala	Gly	Pro	Ala
			20					25						30	
Gly	Ala	Ala	Ala	Ala	Val	Tyr	Ala	Ala	Arg	Lys	Gly	Ile	Arg	Thr	Ala
		35					40					45			
Met	Val	Gly	Ser	Arg	Ile	Gly	Gly	Gln	Val	Leu	Asp	Thr	Glu	Ala	Ile
	50					55					60				
Asp	Asn	Leu	Ile	Ser	Val	Pro	His	Thr	Thr	Gly	Pro	Arg	Leu	Ala	Asp
65					70					75				80	
Ala	Leu	Arg	Ser	His	Val	Asn	Asp	Tyr	Asn	Ile	Asp	Val	Ile	Glu	Arg
			85					90					95		
Gln	Thr	Ala	Ser	Ala	Ile	Glu	Thr	Thr	Gly	Gly	Met	Thr	Thr	Val	His
			100					105					110		
Leu	Thr	Asp	Gly	Asp	Leu	Arg	Ala	Arg	Ser	Val	Ile	Val	Ala	Thr	Gly
		115					120					125			
Ala	Arg	Trp	Arg	Asn	Leu	Gly	Val	Pro	Gly	Glu	Glu	Glu	Tyr	Arg	Thr
	130					135						140			
Lys	Gly	Val	Thr	Tyr	Cys	Pro	His	Cys	Asp	Gly	Pro	Leu	Phe	Thr	Gly
145					150					155				160	
Lys	Lys	Val	Ala	Val	Val	Gly	Gly	Gly	Asn	Ser	Gly	Ile	Glu	Ala	Ala
				165					170					175	
Ile	Asp	Leu	Ala	Gly	Val	Val	Asp								
					180										

<210> 665

<211> 352

<212> DNA

<213> Homo sapiens

<400> 665

acgcgtacag ttcgccgtcg aggttgaaca ccacgatcgg tgtaccgggtc acttcgtcga  
60  
acacgtcttt catttcgccc ggcagcagtt cggcgccggc gcagacaaag gtccaggcct  
120  
cgctcacgcg gtggccccgg ccagcggctt ttccaggatc tcgaaacgca ggctcgtcgcg  
180  
cttggggatg ccgaatcggt cgtcgccata cgggaacggc ttcttgatgc cgggtgcgcag  
240  
gtagccgcgg cgctcgtaga agcgatcaga tcgcgcgcac gtcgatcact gtcattctgca  
300  
ttaccggcac gttccattcg cgcgcggcgt gggcttcggc ggcgtccatc aa  
352

<210> 666  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 666  
 Met Glu Arg Ala Gly Asn Ala Asp Asp Ser Asp Arg Arg Ala Arg Asp  
 1 5 10 15  
 Leu Ile Ala Ser Thr Ser Ala Ala Ala Thr Cys Ala Pro Ala Ser Arg  
 20 25 30  
 Ser Arg Ser Arg Met Ala Thr Asn Asp Ser Ala Ser Pro Ser Ala Thr  
 35 40 45  
 Thr Cys Val Ser Arg Ser Trp Lys Ser Arg Trp Pro Gly Pro Pro Arg  
 50 55 60  
 Glu Arg Gly Leu Asp Leu Cys Leu Arg Arg Arg Arg Thr Ala Ala Gly  
 65 70 75 80  
 Arg Asn Glu Glu Arg Val Arg Arg Ser Asp Arg Tyr Thr Asp Arg Gly  
 85 90 95  
 Val Gln Pro Arg Arg Arg Thr Val Arg  
 100 105

<210> 667  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 667  
 nacgcgtacg aatcgggtgtt gcgtcgcaac ccaggggagg ccgagttcca ccaggctgtg  
 60  
 cgggagatct ttgaatctct cggcccgggtg ctcgacaaga atccgcagta cgtggaggca  
 120  
 gccgtgttgt cgcgcactctg cgaaccggaa cgccagatca ttttccgggt gccgtgggtt  
 180  
 gacgacgagg gcaagatccg tatcaaccgt ggcttccgcg ttgaatatc gtcggtactg  
 240  
 gggccgtata aggggtggatt gcgattccac ccctcgggtg acttaggaac gattaagtcc  
 300  
 cttgggttttg agcagatctt caaaaatgct ctgactggca tgccgatcgg tggcgcgaag  
 360  
 ggtgggtcgg actttgatcc ccatgacgcg t  
 391

<210> 668  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 668  
 Xaa Ala Tyr Glu Ser Val Leu Arg Arg Asn Pro Gly Glu Ala Glu Phe  
 1 5 10 15  
 His Gln Ala Val Arg Glu Ile Phe Glu Ser Leu Gly Pro Val Leu Asp  
 20 25 30  
 Lys Asn Pro Gln Tyr Val Glu Ala Ala Val Leu Ser Arg Ile Cys Glu

```

      35      40      45
Pro Glu Arg Gln Ile Ile Phe Arg Val Pro Trp Val Asp Asp Glu Gly
  50      55      60
Lys Ile Arg Ile Asn Arg Gly Phe Arg Val Glu Tyr Ser Ser Val Leu
  65      70      75      80
Gly Pro Tyr Lys Gly Gly Leu Arg Phe His Pro Ser Val Tyr Leu Gly
      85      90      95
Thr Ile Lys Phe Leu Gly Phe Glu Gln Ile Phe Lys Asn Ala Leu Thr
      100      105      110
Gly Met Pro Ile Gly Gly Ala Lys Gly Gly Ser Asp Phe Asp Pro His
      115      120      125
Asp Ala
      130

```

<210> 669  
 <211> 707  
 <212> DNA  
 <213> Homo sapiens

```

<400> 669
nngagtccgt tccccgtcta agctcatcgt ggtggtgctg gcatggccgt caacaaggga
60
attgagaaca cccttgctgc cttcgggcac gcggtcgagg tgggatgcac ctaccttgaa
120
actgacgttc acgcgaccag cgacgggggtg ctagtggcct tccacgatcc gatactcgat
180
cgcgtcactg aatcaggcgg agtcatcgcc gccatgccgt ggcacaaggt caaacaagcc
240
aaggttggtg gcgaaccgat ccccacctta gatgagattt tcgacgcctt tcccgcgcg
300
ttcatcaata tcgacatcaa gcatgatggc gccaccatgc cgctcatcga cgttctttcc
360
cgtcaccggg cttggagtcg ggtttgctc gggtcgttca gcagtaaacg catccagacc
420
ttccgtcgcc tggttcaggg acgcactgcg actgcagtgg ggtcgggtggg agtcnnggt
480
gggctgtcat cagccctcat agcatgcaga tggcacagtc ccatgggaat gcgtaccagg
540
tgccgcaccg cttgaccggg tnatgggggtg ccccttgatga caccgacctt cattaaagct
600
gcccatcgtc aggggagcgc tgttcacgtc tggacgggta atgagatctc tgaggctcga
660
gaactgatgg atatgggggt cgacggcatc gtcacagatc gtccgga
707

```

<210> 670  
 <211> 170  
 <212> PRT  
 <213> Homo sapiens

```

<400> 670
Met Ala Val Asn Lys Gly Ile Glu Asn Thr Leu Ala Ala Phe Gly His
  1      5      10      15
Ala Val Glu Val Gly Cys Thr Tyr Leu Glu Thr Asp Val His Ala Thr

```

```

                20                25                30
Ser Asp Gly Val Leu Val Ala Phe His Asp Pro Ile Leu Asp Arg Val
                35                40                45
Thr Glu Ser Gly Gly Val Ile Ala Ala Met Pro Trp His Lys Val Lys
                50                55                60
Gln Ala Lys Val Gly Gly Glu Pro Ile Pro Thr Leu Asp Glu Ile Phe
65                70                75                80
Asp Ala Phe Pro Asp Ala Phe Ile Asn Ile Asp Ile Lys His Asp Gly
                85                90                95
Ala Thr Met Pro Leu Ile Asp Val Leu Ser Arg His Arg Ala Trp Ser
                100                105                110
Arg Val Cys Val Gly Ser Phe Ser Ser Lys Arg Ile Gln Thr Phe Arg
                115                120                125
Arg Leu Val Gln Gly Arg Thr Ala Thr Ala Val Gly Ser Val Gly Val
                130                135                140
Xaa Ala Gly Leu Ser Ser Ala Leu Ile Ala Cys Arg Trp His Ser Pro
145                150                155                160
Met Gly Met Arg Thr Arg Cys Arg Thr Ala
                165                170

```

<210> 671  
 <211> 444  
 <212> DNA  
 <213> Homo sapiens

```

<400> 671
acgcgtgggc cttcgggttg atgggatcag aaggggacgg gacctgtaga aaggggcctg
60
cagctcagag catggggcgg ccttggtctca ctacgcctgc agctgtgaat tcgttctccg
120
gtgctggaga gggatctggt tatctccatt ctcttgtctc cacgtggaaa ggaaggacgt
180
gcgctctcat cctacgtggt ttgagaaatc gcattgtccc cagctctgcg ggaggatctg
240
gggacgcagt ggggaaccag acaggcagtt ggaggtctag tgcgcgccag aagccagttc
300
ccacccaggg tgccatttgc tgggcgccct agggagctgc gtgggcatcc agaggagtga
360
gtcgccccct gctctgctca gtgccactt ccccgggcag ggcaggcggtt attaacgtag
420
agggagaaca cccatgcaca caac
444

```

<210> 672  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

```

<400> 672
Met Gly Ser Glu Gly Asp Gly Thr Cys Arg Lys Gly Pro Ala Ala Gln
1                5                10                15
Ser Met Gly Arg Pro Trp Leu Thr Thr Pro Ala Ala Val Asn Ser Phe
                20                25                30
Ser Gly Ala Gly Glu Gly Ser Gly Tyr Leu His Ser Leu Val Ser Thr

```

```

      35      40      45
Trp Lys Gly Arg Thr Cys Ala Leu Ile Leu Arg Val Leu Arg Asn Arg
      50      55      60
Ile Val Pro Ser Ser Ala Gly Gly Ser Gly Asp Ala Val Gly Asn Gln
65      70      75      80
Thr Gly Ser Trp Arg Ser Ser Ala Arg Gln Lys Pro Val Pro Thr Gln
      85      90      95
Gly Ala Ile Cys Trp Ala Pro
      100

```

<210> 673  
 <211> 452  
 <212> DNA  
 <213> Homo sapiens

```

<400> 673
acgcgtccct gcagaaatcc tctcggccta ggtcatccgc aagatgtggc agggcatgca
60
ccgtgaaagc cttcaagtct gccgcagcaa gaccgcacgc ctgctgaaat tcgcagttgt
120
gccgcggtcc ctgatgcgga caaactcggc caccacgatc agcctgacgc ttgcggacca
180
acgttcaa at actgtgcact tgaaacgtcc gggccgcac acctgggtga ctttgtgcga
240
ccgacattac ttatgttcac gctctttcag ttcttgtcaa taccgtatatt ttcgtcgacg
300
tctccatcag aaaaatgtcg gtgttaccgc accgcagacg atgcgtaccc ttgcgctgac
360
gatggaggcc ttgaaaagtg cattagccac tactggggcg atctacggca aaaagctgtt
420
actaggcggg gattggggag gcccgtagtg gc
452

```

<210> 674  
 <211> 134  
 <212> PRT  
 <213> Homo sapiens

```

<400> 674
Met Trp Gln Gly Met His Arg Glu Ser Leu Gln Val Cys Arg Ser Lys
1      5      10      15
Thr Ala Arg Leu Leu Lys Phe Ala Val Val Pro Arg Ser Leu Met Arg
      20      25      30
Thr Asn Ser Ala Thr Thr Ile Ser Leu Thr Leu Ala Asp Gln Arg Ser
      35      40      45
Asn Thr Val His Leu Lys Arg Pro Gly Arg Ile Thr Trp Val Thr Leu
      50      55      60
Cys Asp Arg His Tyr Leu Cys Ser Arg Ser Phe Ser Ser Cys Gln Tyr
65      70      75      80
Arg Ile Phe Arg Arg Arg Leu His Gln Lys Asn Val Gly Val Thr Ala
      85      90      95
Pro Gln Thr Met Arg Thr Leu Ala Leu Thr Met Glu Ala Leu Lys Ser
      100      105      110
Ala Leu Ala Thr Thr Gly Arg Ile Tyr Gly Lys Lys Leu Leu Leu Gly

```

115  
Gly Asp Trp Gly Gly Pro  
130

120

125

<210> 675  
<211> 8564  
<212> DNA  
<213> Homo sapiens

<400> 675  
atgtcgggct ccacacagct tgtggcacag acgtggaggg ccactgagcc ccgctacccg  
60  
ccccacagcc tttcctaccc agtgcagatc gcccgagcgc acacggacgt cgggctcctg  
120  
gagtaccagc accactcccg cgactatgcc tcccacctgt cgccgggctc catcatccag  
180  
ccccagcggc ggaggccctc cctgctgtct gagttccagc ccgggaatga acggtcccag  
240  
gagctccacc tgcggccaga gtcccactca tacctgcccg agctggggaa gtcagagatg  
300  
gagttcattg aaagcaagcg ccctcggcta gagctgctgc ctgaccccct gctgcgaccg  
360  
tcacccctgc tggccacggg ccagcctgcg ggatctgaag acctcaccaa ggaccgtagc  
420  
ctgacgggca agctggaacc ggtgtctccc ccagccccc cgcacactga ccctgagctg  
480  
gagctgggtgc cgccacggct gtccaaggag gagctgatcc agaacatgga ccgcgtggac  
540  
cgagagatca ccatggtaga gcagcagatc tctaagctga agaagaagca gcaacagctg  
600  
gaggaggagg ctgccaagcc gcccgagcct gagaagcccg tgtcaccgcc gcccatcgag  
660  
tcgaagcacc gcagcctggt gcagatcatc tacgacgaga accggaagaa ggctgaagct  
720  
gcacatcgga ttctggaagg cctggggccc caggtggagc tgccgctgta caaccagccc  
780  
tccgacaccc ggcagtatca tgagaacatc aaaataaacc aggcgatgcg gaagaagcta  
840  
atcttgact tcaagaggag gaatcacgct cggaacaat gggagcagaa gttctgccag  
900  
cgctatgacc agctcatgga ggcctgggaa aaaaagggtg agcgcatcga gaacaacccc  
960  
cggcggcggg ccaaggagag caaggtgcgc gactactacg aaaagcagtt ccctgagatc  
1020  
cgcaagcagc gcgagctgca ggagcgcagc cagggcaggg tgggcccagcg gggcagtggg  
1080  
ctgtccatgt cggccgcccc cagcagcac gaggtgtcag agatcatcga tggcctctca  
1140  
gagcaggaga acctggagaa gcagatgcgc cagctggccg tgatcccgc catgctgtac  
1200  
gacgctgacc agcagcgcac caagttcatc aacatgaacg ggcttatggc cgaccccatg  
1260  
aaggtgtaca aagaccgcca ggtcatgaac atgtggagtg agcaggagaa ggagaccttc  
1320

cgggagaagt tcatgcagca tcccaagaac tttggcctga tcgcatcatt cctggagagg  
1380  
aagacagtgg ctgagtgcgt cctctattac tacctgacta agaagaatga gaactataag  
1440  
agcctgggtga gacggagcta tcggcgccgc ggcaagagcc agcagcagca acaacagcag  
1500  
cagcagcagc agcagcagca gcagcagcag cagcccatgc cccgcagcag ccaggaggag  
1560  
aaagatgaga aggagaagga aaaggaggcg gagaaggagg aggagaagcc ggaggtggag  
1620  
aacgacaagg aagacctcct caaggagaag acagacgaca cctcagggga ggacaacgac  
1680  
gagaaggagg ctgtggcctc caaaggccgc aaaactgcc aacagccaggg aagacgcaaa  
1740  
ggccgcatca cccgctcaat ggctaagtag gccaacagcg aggaggccat cccccccag  
1800  
cagagcgccg agctggcctc catggagctg aatgagagtt ctcgctggac agaagaagaa  
1860  
atggaaacag ccaagaaagg tctcctggaa cacggccgca actggtcggc catcgcccgg  
1920  
atggtgggct ccaagactgt gtcgcagtgt aagaacttct acttcaacta caagaaggag  
1980  
cagaacctcg atgagatctt gcagcagcac aagctgaaga tggagaagga gaggaacgcg  
2040  
cggaggaaga agaagaaagc gccggcgggcg gccagcgagg aggtgcatt cccgcccgtg  
2100  
gtggaggatg aggagatgga ggcgtcgggc gtgagcgga atgaggagga gatggtggag  
2160  
gaggctgaag ccttacatgc ctctgggaat gaggtgcca gaggggaatg cagtggcca  
2220  
gccactgtca acaacagctc agacaccgag agcatcccct ctctcacac ggaggccgcc  
2280  
aaggacacag ggcagaatgg gcccaagccc ccagccaccc tgggcgcca cgggccaccc  
2340  
ccaggccac ccacccacc acggaggaca tcccgggccc ccattgagcc caccgccg  
2400  
tctgaagcca ccggagcccc tacgccccca ccagcaccac catcgccctc tgcacctct  
2460  
cctgtgttcc ccaaggagga gaaggaggag gagaccgcag cagcgccccc agtggaggag  
2520  
ggggaggagc agaagcccc cgcggtgag gagctggcag tggacacagg gaaggccgag  
2580  
gagcccgtca agagcgagtg cacggaggaa gccgaggagg ggccggccaa gggcaaggac  
2640  
gcggaggccg ctgaggccac ggccgagggg gcgctcaagg cagagaagaa ggagggcggg  
2700  
agcggcaggg ccaccactgc caagagctcg ggcgcccccc aggacagcga ctccagtgt  
2760  
acctgcagtg cagacgaggt ggatgaggcc gagggcgggc acaagaaccg gctgctgtcc  
2820  
ccaaggcca gcctcctcac cccgactggc gacccccggg ccaatgcctc accccagaag  
2880  
ccactggacc tgaagcagct gaagcagcga gcggctgcca tccccccat ccaggtcacc  
2940



aaagtccatg agcccccccg ggaggacgca gctcccacca agccagctcc cccagcccca  
3000  
ccgccaccgc aaaacctgca gccggagagc gacgcccctc agcagcctgg cagcagcccc  
3060  
cggggcaaga gcaggagccc ggcaccccccc gccgacaagg aggccttcgc agccgaggcc  
3120  
cagaagctgc ctggggaccc cccttgctgg acttccggcc tgcccttccc cgtgcccccc  
3180  
cgtgaggtga tcaaggctc cccgcatgcc ccggaccctt cagccttctc ctacgtctca  
3240  
cctggtcacc cactgcccct gggcctccat gacactgccc ggcccgtcct gccgcgcccc  
3300  
cccaccatct ccaaccgccc tcccctcatc tcctctgcca agcaccaccag cgtcctcgag  
3360  
aggcaaatag gtgccatctc ccaaggaatg tcgggtccagc tccacgtccc gtactcagag  
3420  
catgccaagg ccccgggtggg ccctgtcacc atggggctgc ccctgcccac ggacccccaa  
3480  
aagctggcac ccttcagcgg agtgaagcag gagcagctgt cccacgggg ccaggctggg  
3540  
ccaccggaga gcctgggggt gccacagcc caggaggcgt ccgtgctgag agggacagct  
3600  
ctgggctcag ttccgggagg aagcatcacc aaaggcattc ccagcacacg ggtgccctcg  
3660  
gacagcgcca tcacataccg cggctccatc acccacggca cgccagctga cgtcctgtac  
3720  
aagggcacca tcaccaggat catcggcgag gacagcccga gtcgcttgga ccgcggccgg  
3780  
gaggacagcc tgcccaaggg ccacgtcatc tacgaaggca agaagggcca cgtcctgtcc  
3840  
tatgaggggtg gcatgtctgt gaccagtgcc tccaaggagg acggcagaag cagctcagga  
3900  
cccccccatg agacggccgc cccaagcgc acctatgaca tgatggaggg ccgcgtgggc  
3960  
agagccatct cctcagccag catcgaaggc ctcagggccc gtgccatccc gccggagcga  
4020  
cacagccccc accacctcaa agagcagcac cacatccgcg ggtccatcac acaagggatc  
4080  
cctcggtcct acgtggaggg acaggaggac tacctgcgtc gggaggccaa gtccttaaag  
4140  
cgggagggca cgctccgcgc cccaccgccc tcacgggacc tgaccgaggc ctacaagacg  
4200  
caggccctgg gcccctgaa gctgaagccg gcccatgagg gcctgggtggc cacgggtgaag  
4260  
gaggcgggccc gctccatcca tgagatcccg cgcgaggagc tgcggcacac gcccgagctg  
4320  
cccctggccc cgcggccgct caaggagggc tccatcacgc agggcacccc gctcaagtac  
4380  
gacaccggcg cgtccaccac tggctccaaa aagcacgacg tacgctccct catcggcagc  
4440  
cccggccgga cgttcccacc cgtgcacccg ctggatgtga tggccgacgc ccgggcactg  
4500  
gaacgtgcct gctacgagga gagcctgaag agccggccag ggaccgccag cagctcgggg  
4560

ggctccattg cgcgcggcgc cccggtcatt gtgcctgagc tgggtaagcc gcggcagagc  
4620  
cccctaacct atgaggacca cggggcaccc tttgccggcc acctcccacg aggttcgccc  
4680  
gtgaccacgc gggagcccac gccgcgcctg caggagggca gcctttcgtc cagcaaggca  
4740  
tcccaggacc gaaagctgac gtcgacgcct cgtgagatcg ccaagtcccc gcacagcacc  
4800  
gtgcccgagc accaccaca ccccatctcg ccctatgagc acctgcttcg gggcgtgagt  
4860  
ggcgtggacc tgtatcgag ccacatcccc ctggccttcg accccacctc cataccccgc  
4920  
ggcatccctc tggacgcagc cgctgcctac tacctgcccc gacacctggc ccccaacccc  
4980  
acctaccgc acctgtacc acctacctc atccgcggct accccgacac ggcggcgctg  
5040  
gagaaccggc agaccatcat caatgactac atcacctcgc agcagatgca ccacaacacg  
5100  
gccaccgcca tggcccagcg agctgatatg ctgaggggccc tctcgccccg cgagtcctcg  
5160  
ctggcactca actacgctgc gggccccga ggcacatcg acctgtccca agtgccacac  
5220  
ctgcctgtgc tcgtgcccc gacaccaggc accccagcca ccgccatgga ccgccttgcc  
5280  
tacctcccca ccgcgcccc gcccctcagc agccgccaca gcagctcccc actctcccca  
5340  
ggaggtccaa cacacttgac aaaaccaacc accacgtcct cgtccgagcg ggagcgagac  
5400  
cgggatcgag agcgggaccg ggatcgggag cgggaaaagt ccatactcac gtccaccacg  
5460  
acggtggagc acgcacccat ctggagacct ggtacagagc agagcagcgg cagcagcggc  
5520  
agcagcggcg ggggtggggg cagcagcagc cgccccgcct cccactccca tgcccaccag  
5580  
cactcgccca tctccccctg gaccaggat gccctccagc agagacccag tgtgcttcac  
5640  
aacacaggca tgaagggtat catcaccgct gtggagccca gcacgcccac ggtcctgagg  
5700  
tccacctcca cctcctcacc cgttcgcccc gctgccacat tcccacctgc caccactgc  
5760  
ccactgggcg gcaccctcga tggggtctac cctacctca tggagcccgt cttgctgccc  
5820  
aaggaggccc cccgggtcgc ccggccagag cggccccgag cagacaccgg ccatgccttc  
5880  
ctcgccaagc cccagcccc ctccgggctg gagcccgcc cctccccag caagggtcg  
5940  
gagccccggc ccctagtgc tctgtctct ggccacgcca ccatcgcccc caccctgcg  
6000  
aagaacctcg cacctacca cgccagccc gaccgcggcg cgccacctgc ctggcctcg  
6060  
gaccgcacc gggaaaagac tcaaagtaaa cccttttcca tccaggaact ggaactccgt  
6120  
tctctgggtt accacggcag cagctacagc cccgaagggg tggagcccgt cagccctgtg  
6180

agctcaccca gtctgaccca cgacaagggg ctccccaagc acctggaaga gctcgacaag  
6240  
agccacctgg agggggagct gcggcccaag cagccaggcc ccgtgaagct tggcggggag  
6300  
gccgcccacc tcccacacct gcggccgctg cctgagagcc agccctcgtc cagcccgctg  
6360  
ctccagaccg ccccaggggt caaagggtcac cagcgggtgg tcaccctggc ccagcacatc  
6420  
agtgaggtca tcacacagga ctacaccgg caccaccac agcagctcag cgcaccctg  
6480  
cccgcccccc tctactcctt ccctggggcc agctgccccg tcctggacct ccgcccacca  
6540  
cccagtgacc tctacctccc gccccggac catggtgccc cggcccgtgg ctccccccac  
6600  
agcgaagggg gcaagaggtc tccagagcca aacaagacgt cggctcttggg tgggtggtgag  
6660  
gacggtattg aacctgtgtc ccaccggag ggcattgacgg agccagggca ctcccggagt  
6720  
gctgtgtacc cgctgctgta ccgggatggg gaacagacgg agcccagcag gatgggctcc  
6780  
aagtctccag gcaacaccag ccagccgcca gccttcttca gcaagctgac cgagagcaac  
6840  
tccgccatgg tcaagtccaa gaagcaagag atcaacaaga agctgaacac ccacaaccgg  
6900  
aatgagcctg aatacaatat cagccagcct gggacggaga tcttcaatat gcccgccatc  
6960  
accggaacag gccttatgac ctatagaagc caggcgggtg aggaacatgc cagcaccaac  
7020  
atggggctgg aggccataat tagaaaggca ctcatgggta aatatgacca gtgggaagag  
7080  
tccccgcccgc tcagcgccaa tgcttttaac cctctgaatg ccagtgccag cctgcccgt  
7140  
gctatgcca taaccgctgc tgacggacgg agtgaccaca cactcacctc gccaggtggc  
7200  
ggcgggaagg ccaaggtctc tggcagaccc agcagccgaa aagccaagtc cccggccccg  
7260  
ggcctggcat ctggggaccg gccaccctct gtctcctcag tgcactcgga gggagactgc  
7320  
aaccgcccga cgccgctcac caaccgctg tgggaggaca ggccctcgtc cgcaggttcc  
7380  
acgccattcc cctacaaccc cctgatcatg cggctgcagg cgggtgtcat ggcttcccca  
7440  
ccccaccgg gcctccccgc gggcagcggg cccctcgctg gccccacca cgcctgggac  
7500  
gaggagccca agccactgct ctgctcgag tacgagacac tctccgacag cgagtgactc  
7560  
agaacagggc gggggggggc gggcgggtgc aggtcccagc gagccacagg aacggccctg  
7620  
caggagcggg gcggctgccg actcccccaa ccaaggaagg agcccctgag tccgcctgcg  
7680  
cctccatcca tctgtccgtc cagagccggc atccttgctt gtctaaagcc ttaactaaga  
7740  
ctcccccccc gggctggccc tgtgcagacc ttactcaggg gatgtttacc tgggtgctcg  
7800

gaagggaggg gaaggggccc gggagggggc acggcaggcg tgtggcagcc acacacaggg  
 7860  
 ggccagggcg gccagggacc caaagcagga tgaccacgca cctccacgcc actgcctccc  
 7920  
 ccgaatgcat ttggaaccaa agtctaaact gagctcgag cccccgcgcc ctccctccgc  
 7980  
 ctcccatccc gcttagcgct ctggacagat ggacgcaggc cctgtccagc cccagtgcg  
 8040  
 ctggttctgg tccccacaga ctgcccagc caacgagatt gctggaaacc aagtcaggcc  
 8100  
 aggtgggccc aaaaaagggc caggtgcggc ctggggggaa cggatgctcc gaggactgga  
 8160  
 ctgttttttt cacacatcgt tgccgcagcg gtgggaagga aaggcagatg taaatgatgt  
 8220  
 gttggtttac agggatatatt ttgatacct tcaatgaatt aattcagatg ttttacgcaa  
 8280  
 ggaaggactt acccagtatt actgctgctg tgcttttgat ctctgcttac cgttcaagag  
 8340  
 gcgtgtgcag gccgacagtc ggtgacccca tcactcgag gaccaagggg gcggggactg  
 8400  
 ctggctcacg ccccgctgtg tctccctcc ctcccttcc ttggcagaat gaattcgatg  
 8460  
 cgtattctgt ggccgccatt tgcgcagggt ggtggtattc tgtcatttac acacgtcgtt  
 8520  
 ctaattaaaa agcgaattat actccaaaaa aaaaaaaaaa aaaa  
 8564

<210> 676  
 <211> 2518  
 <212> PRT  
 <213> Homo sapiens

<400> 676  
 Met Ser Gly Ser Thr Gln Leu Val Ala Gln Thr Trp Arg Ala Thr Glu  
 1 5 10 15  
 Pro Arg Tyr Pro Pro His Ser Leu Ser Tyr Pro Val Gln Ile Ala Arg  
 20 25 30  
 Thr His Thr Asp Val Gly Leu Leu Glu Tyr Gln His His Ser Arg Asp  
 35 40 45  
 Tyr Ala Ser His Leu Ser Pro Gly Ser Ile Ile Gln Pro Gln Arg Arg  
 50 55 60  
 Arg Pro Ser Leu Leu Ser Glu Phe Gln Pro Gly Asn Glu Arg Ser Gln  
 65 70 75 80  
 Glu Leu His Leu Arg Pro Glu Ser His Ser Tyr Leu Pro Glu Leu Gly  
 85 90 95  
 Lys Ser Glu Met Glu Phe Ile Glu Ser Lys Arg Pro Arg Leu Glu Leu  
 100 105 110  
 Leu Pro Asp Pro Leu Leu Arg Pro Ser Pro Leu Leu Ala Thr Gly Gln  
 115 120 125  
 Pro Ala Gly Ser Glu Asp Leu Thr Lys Asp Arg Ser Leu Thr Gly Lys  
 130 135 140  
 Leu Glu Pro Val Ser Pro Pro Ser Pro Pro His Thr Asp Pro Glu Leu  
 145 150 155 160  
 Glu Leu Val Pro Pro Arg Leu Ser Lys Glu Glu Leu Ile Gln Asn Met

				165					170					175			
Asp	Arg	Val	Asp	Arg	Glu	Ile	Thr	Met	Val	Glu	Gln	Gln	Ile	Ser	Lys		
			180					185						190			
Leu	Lys	Lys	Lys	Gln	Gln	Gln	Leu	Glu	Glu	Glu	Ala	Ala	Lys	Pro	Pro		
		195					200						205				
Glu	Pro	Glu	Lys	Pro	Val	Ser	Pro	Pro	Pro	Ile	Glu	Ser	Lys	His	Arg		
	210					215					220						
Ser	Leu	Val	Gln	Ile	Ile	Tyr	Asp	Glu	Asn	Arg	Lys	Lys	Ala	Glu	Ala		
225				230						235					240		
Ala	His	Arg	Ile	Leu	Glu	Gly	Leu	Gly	Pro	Gln	Val	Glu	Leu	Pro	Leu		
			245					250						255			
Tyr	Asn	Gln	Pro	Ser	Asp	Thr	Arg	Gln	Tyr	His	Glu	Asn	Ile	Lys	Ile		
		260						265					270				
Asn	Gln	Ala	Met	Arg	Lys	Lys	Leu	Ile	Leu	Tyr	Phe	Lys	Arg	Arg	Asn		
	275						280						285				
His	Ala	Arg	Lys	Gln	Trp	Glu	Gln	Lys	Phe	Cys	Gln	Arg	Tyr	Asp	Gln		
	290					295					300						
Leu	Met	Glu	Ala	Trp	Glu	Lys	Lys	Val	Glu	Arg	Ile	Glu	Asn	Asn	Pro		
305				310						315					320		
Arg	Arg	Arg	Ala	Lys	Glu	Ser	Lys	Val	Arg	Glu	Tyr	Tyr	Glu	Lys	Gln		
			325					330						335			
Phe	Pro	Glu	Ile	Arg	Lys	Gln	Arg	Glu	Leu	Gln	Glu	Arg	Met	Gln	Gly		
	340							345					350				
Arg	Val	Gly	Gln	Arg	Gly	Ser	Gly	Leu	Ser	Met	Ser	Ala	Ala	Arg	Ser		
	355						360					365					
Glu	His	Glu	Val	Ser	Glu	Ile	Ile	Asp	Gly	Leu	Ser	Glu	Gln	Glu	Asn		
	370					375					380						
Leu	Glu	Lys	Gln	Met	Arg	Gln	Leu	Ala	Val	Ile	Pro	Pro	Met	Leu	Tyr		
385				390						395					400		
Asp	Ala	Asp	Gln	Gln	Arg	Ile	Lys	Phe	Ile	Asn	Met	Asn	Gly	Leu	Met		
			405					410						415			
Ala	Asp	Pro	Met	Lys	Val	Tyr	Lys	Asp	Arg	Gln	Val	Met	Asn	Met	Trp		
		420						425					430				
Ser	Glu	Gln	Glu	Lys	Glu	Thr	Phe	Arg	Glu	Lys	Phe	Met	Gln	His	Pro		
	435					440						445					
Lys	Asn	Phe	Gly	Leu	Ile	Ala	Ser	Phe	Leu	Glu	Arg	Lys	Thr	Val	Ala		
	450					455					460						
Glu	Cys	Val	Leu	Tyr	Tyr	Tyr	Leu	Thr	Lys	Lys	Asn	Glu	Asn	Tyr	Lys		
465				470						475					480		
Ser	Leu	Val	Arg	Arg	Ser	Tyr	Arg	Arg	Arg	Gly	Lys	Ser	Gln	Gln	Gln		
			485					490						495			
Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Pro		
		500						505					510				
Met	Pro	Arg	Ser	Ser	Gln	Glu	Glu	Lys	Asp	Glu	Lys	Glu	Lys	Glu	Lys		
	515							520					525				
Glu	Ala	Glu	Lys	Glu	Glu	Glu	Lys	Pro	Glu	Val	Glu	Asn	Asp	Lys	Glu		
	530					535					540						
Asp	Leu	Leu	Lys	Glu	Lys	Thr	Asp	Asp	Thr	Ser	Gly	Glu	Asp	Asn	Asp		
545				550						555					560		
Glu	Lys	Glu	Ala	Val	Ala	Ser	Lys	Gly	Arg	Lys	Thr	Ala	Asn	Ser	Gln		
			565					570					575				
Gly	Arg	Arg	Lys	Gly	Arg	Ile	Thr	Arg	Ser	Met	Ala	Asn	Glu	Ala	Asn		
	580							585				590					
Ser	Glu	Glu	Ala	Ile	Thr	Pro	Gln	Gln	Ser	Ala	Glu	Leu	Ala	Ser	Met		

595	600	605
Glu Leu Asn Glu Ser Ser Arg Trp Thr Glu Glu Glu Met Glu Thr Ala		
610	615	620
Lys Lys Gly Leu Leu Glu His Gly Arg Asn Trp Ser Ala Ile Ala Arg		
625	630	635
Met Val Gly Ser Lys Thr Val Ser Gln Cys Lys Asn Phe Tyr Phe Asn		
645	650	655
Tyr Lys Lys Arg Gln Asn Leu Asp Glu Ile Leu Gln Gln His Lys Leu		
660	665	670
Lys Met Glu Lys Glu Arg Asn Ala Arg Arg Lys Lys Lys Lys Ala Pro		
675	680	685
Ala Ala Ala Ser Glu Glu Ala Ala Phe Pro Pro Val Val Glu Asp Glu		
690	695	700
Glu Met Glu Ala Ser Gly Val Ser Gly Asn Glu Glu Glu Met Val Glu		
705	710	715
Glu Ala Glu Ala Leu His Ala Ser Gly Asn Glu Val Pro Arg Gly Glu		
725	730	735
Cys Ser Gly Pro Ala Thr Val Asn Asn Ser Ser Asp Thr Glu Ser Ile		
740	745	750
Pro Ser Pro His Thr Glu Ala Ala Lys Asp Thr Gly Gln Asn Gly Pro		
755	760	765
Lys Pro Pro Ala Thr Leu Gly Ala Asp Gly Pro Pro Pro Gly Pro Pro		
770	775	780
Thr Pro Pro Arg Arg Thr Ser Arg Ala Pro Ile Glu Pro Thr Pro Ala		
785	790	795
Ser Glu Ala Thr Gly Ala Pro Thr Pro Pro Pro Ala Pro Pro Ser Pro		
805	810	815
Ser Ala Pro Pro Pro Val Val Pro Lys Glu Glu Lys Glu Glu Glu Thr		
820	825	830
Ala Ala Ala Pro Pro Val Glu Glu Gly Glu Glu Gln Lys Pro Pro Ala		
835	840	845
Ala Glu Glu Leu Ala Val Asp Thr Gly Lys Ala Glu Glu Pro Val Lys		
850	855	860
Ser Glu Cys Thr Glu Glu Ala Glu Glu Gly Pro Ala Lys Gly Lys Asp		
865	870	875
Ala Glu Ala Ala Glu Ala Thr Ala Glu Gly Ala Leu Lys Ala Glu Lys		
885	890	895
Lys Glu Gly Gly Ser Gly Arg Ala Thr Thr Ala Lys Ser Ser Gly Ala		
900	905	910
Pro Gln Asp Ser Asp Ser Ser Ala Thr Cys Ser Ala Asp Glu Val Asp		
915	920	925
Glu Ala Glu Gly Gly Asp Lys Asn Arg Leu Leu Ser Pro Arg Pro Ser		
930	935	940
Leu Leu Thr Pro Thr Gly Asp Pro Arg Ala Asn Ala Ser Pro Gln Lys		
945	950	955
Pro Leu Asp Leu Lys Gln Leu Lys Gln Arg Ala Ala Ala Ile Pro Pro		
965	970	975
Ile Gln Val Thr Lys Val His Glu Pro Pro Arg Glu Asp Ala Ala Pro		
980	985	990
Thr Lys Pro Ala Pro Pro Ala Pro Pro Pro Pro Gln Asn Leu Gln Pro		
995	1000	1005
Glu Ser Asp Ala Pro Gln Gln Pro Gly Ser Ser Pro Arg Gly Lys Ser		
1010	1015	1020
Arg Ser Pro Ala Pro Pro Ala Asp Lys Glu Ala Phe Ala Ala Glu Ala		



1025 1030 1035 1040  
Gln Lys Leu Pro Gly Asp Pro Pro Cys Trp Thr Ser Gly Leu Pro Phe  
1045 1050 1055  
Pro Val Pro Pro Arg Glu Val Ile Lys Ala Ser Pro His Ala Pro Asp  
1060 1065 1070  
Pro Ser Ala Phe Ser Tyr Ala Pro Pro Gly His Pro Leu Pro Leu Gly  
1075 1080 1085  
Leu His Asp Thr Ala Arg Pro Val Leu Pro Arg Pro Pro Thr Ile Ser  
1090 1095 1100  
Asn Pro Pro Pro Leu Ile Ser Ser Ala Lys His Pro Ser Val Leu Glu  
1105 1110 1115 1120  
Arg Gln Ile Gly Ala Ile Ser Gln Gly Met Ser Val Gln Leu His Val  
1125 1130 1135  
Pro Tyr Ser Glu His Ala Lys Ala Pro Val Gly Pro Val Thr Met Gly  
1140 1145 1150  
Leu Pro Leu Pro Met Asp Pro Lys Lys Leu Ala Pro Phe Ser Gly Val  
1155 1160 1165  
Lys Gln Glu Gln Leu Ser Pro Arg Gly Gln Ala Gly Pro Pro Glu Ser  
1170 1175 1180  
Leu Gly Val Pro Thr Ala Gln Glu Ala Ser Val Leu Arg Gly Thr Ala  
1185 1190 1195 1200  
Leu Gly Ser Val Pro Gly Gly Ser Ile Thr Lys Gly Ile Pro Ser Thr  
1205 1210 1215  
Arg Val Pro Ser Asp Ser Ala Ile Thr Tyr Arg Gly Ser Ile Thr His  
1220 1225 1230  
Gly Thr Pro Ala Asp Val Leu Tyr Lys Gly Thr Ile Thr Arg Ile Ile  
1235 1240 1245  
Gly Glu Asp Ser Pro Ser Arg Leu Asp Arg Gly Arg Glu Asp Ser Leu  
1250 1255 1260  
Pro Lys Gly His Val Ile Tyr Glu Gly Lys Lys Gly His Val Leu Ser  
1265 1270 1275 1280  
Tyr Glu Gly Gly Met Ser Val Thr Gln Cys Ser Lys Glu Asp Gly Arg  
1285 1290 1295  
Ser Ser Ser Gly Pro Pro His Glu Thr Ala Ala Pro Lys Arg Thr Tyr  
1300 1305 1310  
Asp Met Met Glu Gly Arg Val Gly Arg Ala Ile Ser Ser Ala Ser Ile  
1315 1320 1325  
Glu Gly Leu Met Gly Arg Ala Ile Pro Pro Glu Arg His Ser Pro His  
1330 1335 1340  
His Leu Lys Glu Gln His His Ile Arg Gly Ser Ile Thr Gln Gly Ile  
1345 1350 1355 1360  
Pro Arg Ser Tyr Val Glu Ala Gln Glu Asp Tyr Leu Arg Arg Glu Ala  
1365 1370 1375  
Lys Leu Leu Lys Arg Glu Gly Thr Pro Pro Pro Pro Pro Ser Arg  
1380 1385 1390  
Asp Leu Thr Glu Ala Tyr Lys Thr Gln Ala Leu Gly Pro Leu Lys Leu  
1395 1400 1405  
Lys Pro Ala His Glu Gly Leu Val Ala Thr Val Lys Glu Ala Gly Arg  
1410 1415 1420  
Ser Ile His Glu Ile Pro Arg Glu Glu Leu Arg His Thr Pro Glu Leu  
1425 1430 1435 1440  
Pro Leu Ala Pro Arg Pro Leu Lys Glu Gly Ser Ile Thr Gln Gly Thr  
1445 1450 1455  
Pro Leu Lys Tyr Asp Thr Gly Ala Ser Thr Thr Gly Ser Lys Lys His

1460 1465 1470  
Asp Val Arg Ser Leu Ile Gly Ser Pro Gly Arg Thr Phe Pro Pro Val  
1475 1480 1485  
His Pro Leu Asp Val Met Ala Asp Ala Arg Ala Leu Glu Arg Ala Cys  
1490 1495 1500  
Tyr Glu Glu Ser Leu Lys Ser Arg Pro Gly Thr Ala Ser Ser Ser Gly  
1505 1510 1515 1520  
Gly Ser Ile Ala Arg Gly Ala Pro Val Ile Val Pro Glu Leu Gly Lys  
1525 1530 1535  
Pro Arg Gln Ser Pro Leu Thr Tyr Glu Asp His Gly Ala Pro Phe Ala  
1540 1545 1550  
Gly His Leu Pro Arg Gly Ser Pro Val Thr Thr Arg Glu Pro Thr Pro  
1555 1560 1565  
Arg Leu Gln Glu Gly Ser Leu Ser Ser Ser Lys Ala Ser Gln Asp Arg  
1570 1575 1580  
Lys Leu Thr Ser Thr Pro Arg Glu Ile Ala Lys Ser Pro His Ser Thr  
1585 1590 1595 1600  
Val Pro Glu His His Pro His Pro Ile Ser Pro Tyr Glu His Leu Leu  
1605 1610 1615  
Arg Gly Val Ser Gly Val Asp Leu Tyr Arg Ser His Ile Pro Leu Ala  
1620 1625 1630  
Phe Asp Pro Thr Ser Ile Pro Arg Gly Ile Pro Leu Asp Ala Ala Ala  
1635 1640 1645  
Ala Tyr Tyr Leu Pro Arg His Leu Ala Pro Asn Pro Thr Tyr Pro His  
1650 1655 1660  
Leu Tyr Pro Pro Tyr Leu Ile Arg Gly Tyr Pro Asp Thr Ala Ala Leu  
1665 1670 1675 1680  
Glu Asn Arg Gln Thr Ile Ile Asn Asp Tyr Ile Thr Ser Gln Gln Met  
1685 1690 1695  
His His Asn Thr Ala Thr Ala Met Ala Gln Arg Ala Asp Met Leu Arg  
1700 1705 1710  
Gly Leu Ser Pro Arg Glu Ser Ser Leu Ala Leu Asn Tyr Ala Ala Gly  
1715 1720 1725  
Pro Arg Gly Ile Ile Asp Leu Ser Gln Val Pro His Leu Pro Val Leu  
1730 1735 1740  
Val Pro Pro Thr Pro Gly Thr Pro Ala Thr Ala Met Asp Arg Leu Ala  
1745 1750 1755 1760  
Tyr Leu Pro Thr Ala Pro Gln Pro Phe Ser Ser Arg His Ser Ser Ser  
1765 1770 1775  
Pro Leu Ser Pro Gly Gly Pro Thr His Leu Thr Lys Pro Thr Thr Thr  
1780 1785 1790  
Ser Ser Ser Glu Arg Glu Arg Asp Arg Asp Arg Glu Arg Asp Arg Asp  
1795 1800 1805  
Arg Glu Arg Glu Lys Ser Ile Leu Thr Ser Thr Thr Thr Val Glu His  
1810 1815 1820  
Ala Pro Ile Trp Arg Pro Gly Thr Glu Gln Ser Ser Gly Ser Ser Gly  
1825 1830 1835 1840  
Ser Ser Gly Gly Gly Gly Gly Ser Ser Ser Arg Pro Ala Ser His Ser  
1845 1850 1855  
His Ala His Gln His Ser Pro Ile Ser Pro Arg Thr Gln Asp Ala Leu  
1860 1865 1870  
Gln Gln Arg Pro Ser Val Leu His Asn Thr Gly Met Lys Gly Ile Ile  
1875 1880 1885  
Thr Ala Val Glu Pro Ser Thr Pro Thr Val Leu Arg Ser Thr Ser Thr



1890 1895 1900  
Ser Ser Pro Val Arg Pro Ala Ala Thr Phe Pro Pro Ala Thr His Cys  
1905 1910 1915 1920  
Pro Leu Gly Gly Thr Leu Asp Gly Val Tyr Pro Thr Leu Met Glu Pro  
1925 1930 1935  
Val Leu Leu Pro Lys Glu Ala Pro Arg Val Ala Arg Pro Glu Arg Pro  
1940 1945 1950  
Arg Ala Asp Thr Gly His Ala Phe Leu Ala Lys Pro Pro Ala Arg Ser  
1955 1960 1965  
Gly Leu Glu Pro Ala Ser Ser Pro Ser Lys Gly Ser Glu Pro Arg Pro  
1970 1975 1980  
Leu Val Pro Pro Val Ser Gly His Ala Thr Ile Ala Arg Thr Pro Ala  
1985 1990 1995 2000  
Lys Asn Leu Ala Pro His His Ala Ser Pro Asp Pro Pro Ala Pro Pro  
2005 2010 2015  
Ala Ser Ala Ser Asp Pro His Arg Glu Lys Thr Gln Ser Lys Pro Phe  
2020 2025 2030  
Ser Ile Gln Glu Leu Glu Leu Arg Ser Leu Gly Tyr His Gly Ser Ser  
2035 2040 2045  
Tyr Ser Pro Glu Gly Val Glu Pro Val Ser Pro Val Ser Ser Pro Ser  
2050 2055 2060  
Leu Thr His Asp Lys Gly Leu Pro Lys His Leu Glu Glu Leu Asp Lys  
2065 2070 2075 2080  
Ser His Leu Glu Gly Glu Leu Arg Pro Lys Gln Pro Gly Pro Val Lys  
2085 2090 2095  
Leu Gly Gly Glu Ala Ala His Leu Pro His Leu Arg Pro Leu Pro Glu  
2100 2105 2110  
Ser Gln Pro Ser Ser Ser Pro Leu Leu Gln Thr Ala Pro Gly Val Lys  
2115 2120 2125  
Gly His Gln Arg Val Val Thr Leu Ala Gln His Ile Ser Glu Val Ile  
2130 2135 2140  
Thr Gln Asp Tyr Thr Arg His His Pro Gln Gln Leu Ser Ala Pro Leu  
2145 2150 2155 2160  
Pro Ala Pro Leu Tyr Ser Phe Pro Gly Ala Ser Cys Pro Val Leu Asp  
2165 2170 2175  
Leu Arg Arg Pro Pro Ser Asp Leu Tyr Leu Pro Pro Pro Asp His Gly  
2180 2185 2190  
Ala Pro Ala Arg Gly Ser Pro His Ser Glu Gly Gly Lys Arg Ser Pro  
2195 2200 2205  
Glu Pro Asn Lys Thr Ser Val Leu Gly Gly Gly Glu Asp Gly Ile Glu  
2210 2215 2220  
Pro Val Ser Pro Pro Glu Gly Met Thr Glu Pro Gly His Ser Arg Ser  
2225 2230 2235 2240  
Ala Val Tyr Pro Leu Leu Tyr Arg Asp Gly Glu Gln Thr Glu Pro Ser  
2245 2250 2255  
Arg Met Gly Ser Lys Ser Pro Gly Asn Thr Ser Gln Pro Pro Ala Phe  
2260 2265 2270  
Phe Ser Lys Leu Thr Glu Ser Asn Ser Ala Met Val Lys Ser Lys Lys  
2275 2280 2285  
Gln Glu Ile Asn Lys Lys Leu Asn Thr His Asn Arg Asn Glu Pro Glu  
2290 2295 2300  
Tyr Asn Ile Ser Gln Pro Gly Thr Glu Ile Phe Asn Met Pro Ala Ile  
2305 2310 2315 2320  
Thr Gly Thr Gly Leu Met Thr Tyr Arg Ser Gln Ala Val Gln Glu His

```
<210> 677
<211> 345
<212> DNA
<213> Homo sapiens
```

```
<210> 678
<211> 110
<212> PRT
<213> Homo sapiens
```

BNSDOCID: <WO\_\_0058473A2 | >

```

                20                25                30
Ile Glu Val Thr Phe Asp Ile Asp Ala Asn Gly Ile Leu Asn Val Ser
                35                40                45
Ala Lys Asp Lys Ala Thr Gly Lys Glu Gln Lys Ile Arg Ile Glu Ala
                50                55                60
Ser Ser Gly Leu Ser Gln Glu Glu Ile Asp Arg Met Lys Ala Glu Ala
65                70                75                80
Glu Gln Asn Ala Ala Ala Gly Lys Ala Glu Arg Glu Lys Ile Asp Lys
                85                90                95
Leu Asn Gln Ala Asp Ser Met Ile Ser Pro Pro Glu Asn Ser
                100                105                110

```

<210> 679  
 <211> 362  
 <212> DNA  
 <213> Homo sapiens

```

<400> 679
acgcgtgacg tcaccgctcc atggggaaga tgacgactat ccctgtgaaa gtaaagcata
60
atgggaaaaa tgtacgttaa atgtgctaac gcgcagtatg atgtatctat gaatcttgag
120
ggtacaggcc tggatttcaa gcgtgccatt gctgacgtca cgcattgtgcc acccgaacgc
180
caaaaagtac tcatcaaggg aggattgcta aaagacgata cccattagg taaagtgggt
240
gcgcgtgcag gacagcagtt catggtgctg ggtgctgtgg gtgagctgcc caaggcccca
300
gaaaaacctg tgctgttcct ggaggatttg ccggaagacg agctcaacaa ggctaaggat
360
cc
362

```

<210> 680  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

```

<400> 680
Met Gly Lys Met Tyr Val Lys Cys Ala Asn Ala Gln Tyr Asp Val Ser
1                5                10                15
Met Asn Leu Glu Gly Thr Gly Leu Asp Phe Lys Arg Ala Ile Ala Asp
                20                25                30
Val Thr His Val Pro Pro Glu Arg Gln Lys Val Leu Ile Lys Gly Gly
                35                40                45
Leu Leu Lys Asp Asp Thr Pro Leu Gly Lys Val Gly Ala Arg Ala Gly
50                55                60
Gln Gln Phe Met Val Leu Gly Ala Val Gly Glu Leu Pro Lys Ala Pro
65                70                75                80
Glu Lys Pro Val Leu Phe Leu Glu Asp Leu Pro Glu Asp Glu Leu Asn
                85                90                95
Lys Ala Lys Asp
                100

```

<210> 681  
 <211> 357  
 <212> DNA  
 <213> Homo sapiens

<400> 681  
 acgcgtccaa atggacaaac gcttgatgat ttctaccatg aaattagagc aaaatatcca  
 60  
 gaacaattac tgatggcaga ctgttcaaca gtagaagaaa tgattcacgc tgatgaactc  
 120  
 ggttttgatt ttatcggaag tacttttagta ggatatacaa aacaaagtaa aggtgacaaa  
 180  
 atcgaagaaa atgactttga aatcttgaga acagtttttag aacgaattaa acatccacta  
 240  
 attgcagaag gcaatatcga tacacctgaa aaggtgaaac gtgtgcttga gttaggcgcg  
 300  
 tatagtgtcg ttgtagggtc agcgattact cgtccacaac tcatcacgaa aaaattt  
 357

<210> 682  
 <211> 119  
 <212> PRT  
 <213> Homo sapiens

<400> 682  
 Thr Arg Pro Asn Gly Gln Thr Leu Asp Asp Phe Tyr His Glu Ile Arg  
 1 5 10 15  
 Ala Lys Tyr Pro Glu Gln Leu Leu Met Ala Asp Cys Ser Thr Val Glu  
 20 25 30  
 Glu Met Ile His Ala Asp Glu Leu Gly Phe Asp Phe Ile Gly Ser Thr  
 35 40 45  
 Leu Val Gly Tyr Thr Lys Gln Ser Lys Gly Asp Lys Ile Glu Glu Asn  
 50 55 60  
 Asp Phe Glu Ile Leu Arg Thr Val Leu Glu Arg Ile Lys His Pro Leu  
 65 70 75 80  
 Ile Ala Glu Gly Asn Ile Asp Thr Pro Glu Lys Val Lys Arg Val Leu  
 85 90 95  
 Glu Leu Gly Ala Tyr Ser Val Val Val Gly Ser Ala Ile Thr Arg Pro  
 100 105 110  
 Gln Leu Ile Thr Lys Lys Phe  
 115

<210> 683  
 <211> 411  
 <212> DNA  
 <213> Homo sapiens

<400> 683  
 ntctccgacc gcgtggtaaa actggcgacc ttaattgctg aagatgagca agctgaaatg  
 60  
 aatattgttt tgcccgcagc gtggttgcatt gattgcgtca gttaccctaa aaaccatgta  
 120  
 ttaagagcac aaagtgcatt acatgcagca gataaagcga ttgtattttt gcgcagtatt  
 180

aattacccca aacaatactt attagcaatt catcatgcaa tttcagcgca cagtgtcagt  
 240  
 ggtaaaatac aggcaatgag tttagaagct caaatagtgc aagatgcaga tagattggat  
 300  
 gcgctagggg caattggcgt ggctcgttgc attcaagtaa gtagccagtt acagcgccca  
 360  
 ctatattctg aagttgaccc cttcagcgag acacgatctc tagtctgcat g  
 411

<210> 684  
 <211> 137  
 <212> PRT  
 <213> Homo sapiens

<400> 684  
 Xaa Ser Asp Arg Val Val Lys Leu Ala Thr Leu Ile Ala Glu Asp Glu  
 1 5 10 15  
 Gln Ala Glu Met Asn Ile Val Leu Pro Ala Ala Trp Leu His Asp Cys  
 20 25 30  
 Val Ser Tyr Pro Lys Asn His Val Leu Arg Ala Gln Ser Ala Leu His  
 35 40 45  
 Ala Ala Asp Lys Ala Ile Val Phe Leu Arg Ser Ile Asn Tyr Pro Lys  
 50 55 60  
 Gln Tyr Leu Leu Ala Ile His His Ala Ile Ser Ala His Ser Val Ser  
 65 70 75 80  
 Gly Lys Ile Gln Ala Met Ser Leu Glu Ala Gln Ile Val Gln Asp Ala  
 85 90 95  
 Asp Arg Leu Asp Ala Leu Gly Ala Ile Gly Val Ala Arg Cys Ile Gln  
 100 105 110  
 Val Ser Ser Gln Leu Gln Arg Pro Leu Tyr Ser Glu Val Asp Pro Phe  
 115 120 125  
 Ser Glu Thr Arg Ser Leu Val Cys Met  
 130 135

<210> 685  
 <211> 417  
 <212> DNA  
 <213> Homo sapiens

<400> 685  
 acgcgttgcg ttgcggagtg aacccggaac gatggatgga ttgacactat tcggcctggt  
 60  
 cgccgtcact gcgatgctgg tctgctatgc catggaggac cgcagccact ggttcgtgct  
 120  
 gctgttcgcg gccgcttggc gctcggttcg gcctacggct tcctccaagg cgcctggccg  
 180  
 ttcggcttcg tcgaggcgat atgggcgctc gttgcctgcg gcgtggtgga cgatcaggcc  
 240  
 gcgatgaccg catcgctcgg ctttaagccc gaaacgaaac cgaccagtgc gctggtttga  
 300  
 tgggcggcgc gtcgctggat gcacagcgtc tcgacgcgag cgtgatgatg gcctcagcgc  
 360  
 gtgcatgccg acgctgtcgc tcatcgcgct acgctcgacc acggcgcgcg gcaatag  
 417

<210> 686  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 686  
 Met Pro Trp Arg Thr Ala Ala Thr Gly Ser Cys Cys Cys Ser Arg Pro  
 1 5 10 15  
 Leu Gly Ala Arg Phe Gly Leu Arg Leu Pro Pro Arg Arg Leu Ala Val  
 20 25 30  
 Arg Leu Arg Arg Gly Asp Met Gly Ala Arg Cys Leu Arg Arg Gly Gly  
 35 40 45  
 Arg Ser Gly Arg Asp Asp Arg Ile Val Arg Leu Lys Pro Gly Asn Glu  
 50 55 60  
 Thr Asp Gln Cys Ala Gly Leu Met Gly Gly Ala Ser Leu Asp Ala Gln  
 65 70 75 80  
 Arg Leu Asp Ala Ser Val Met Met Ala Ser Ala Arg Ala Cys Arg Arg  
 85 90 95  
 Cys Arg Ser Ser Arg Tyr Ala Arg Pro Arg Arg Ala Ala Ile  
 100 105 110

<210> 687  
 <211> 412  
 <212> DNA  
 <213> Homo sapiens

<400> 687  
 nnacgcgtga ccgaccaact gcgagccacc ctgctcgcca tggctgctat ggggttgac  
 60  
 gacggcatcg atattccgtc tggggcgatt attgaaagct gccgcacctt atcagccggt  
 120  
 ctcgatgaaa cccacggtgg tcgcacgata gagcttcggg taccacctgc gtgcgcggtt  
 180  
 caattggcgg ccattgagtc gggccccaac caccaccggg gcaactccgcc caatgtggcc  
 240  
 gagaccgacc ctgtcacctt cctgcagttg gcaactgggt tctcacactg gccagaaatg  
 300  
 cgctcagcag gacgggttca ggcgtctgga tcccacgtcg acgacgttgc tggcgtgttc  
 360  
 ccagtcgttg atatggccgg ggttttccgc gacatttttg ccgacgacta ga  
 412

<210> 688  
 <211> 136  
 <212> PRT  
 <213> Homo sapiens

<400> 688  
 Xaa Arg Val Thr Asp Gln Leu Arg Ala Thr Leu Leu Ala Met Ala Ala  
 1 5 10 15  
 Met Gly Leu His Asp Gly Ile Asp Ile Pro Ser Gly Ala Ile Ile Glu  
 20 25 30  
 Ser Cys Arg Thr Leu Ser Ala Val Leu Asp Glu Thr His Gly Gly Arg

```

      35      40      45
Thr Ile Glu Leu Arg Val Pro Pro Ala Cys Ala Val Gln Leu Ala Ala
      50      55      60
Ile Glu Ser Gly Pro Asn His His Arg Gly Thr Pro Pro Asn Val Ala
      65      70      75      80
Glu Thr Asp Pro Val Thr Phe Leu Gln Leu Ala Thr Gly Phe Ser His
      85      90      95
Trp Pro Glu Met Arg Ser Ala Gly Arg Val Gln Ala Ser Gly Ser His
      100      105      110
Val Asp Asp Val Ala Gly Val Phe Pro Val Val Asp Met Ala Gly Val
      115      120      125
Phe Arg Asp Ile Phe Ala Asp Asp
      130      135

```

<210> 689  
 <211> 499  
 <212> DNA  
 <213> Homo sapiens

```

<400> 689
cgcgctcgcgg tactcgacgt cgatttttcat cacggtaacg gcacccagaa cattttttac
60
ccgcgcaatg acgtgatggt catatcgctg cacggcgagc cggccgtgtc ctatccctac
120
tattcgggggt tcagcgatga agtcggcgca ggtggtggcg aagggttcaa cctcaactac
180
ccgctgccga aaaacaccgc ctgggatacc taccgcgacg cctgctgca tgctgcagg
240
aaactccagc aattctcgcc gcaggatttg gtgatctcac tgggggtcga caccttcaag
300
gacgaccoga tcagtcactt cctgctggaa ggcgaggatt tcatcgggat cggcgagctg
360
atagcgagtg tgggttgccc caccctgttt gtgatggaag gcggctatat ggtcgatgaa
420
atcggaatca acgcggtgaa cgtactgcat ggcttcgaga gcaagcgcgc ttgagcatcc
480
gcccgaagac ggcgtgata
499

```

<210> 690  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens

```

<400> 690
Arg Val Ala Val Leu Asp Val Asp Phe His His Gly Asn Gly Thr Gln
      1      5      10      15
Asn Ile Phe Tyr Pro Arg Asn Asp Val Met Phe Ile Ser Leu His Gly
      20      25      30
Glu Pro Ala Val Ser Tyr Pro Tyr Tyr Ser Gly Phe Ser Asp Glu Val
      35      40      45
Gly Ala Gly Val Gly Glu Gly Phe Asn Leu Asn Tyr Pro Leu Pro Lys
      50      55      60
Asn Thr Ala Trp Asp Thr Tyr Arg Asp Ala Leu Leu His Ala Cys Arg

```

```

65              70              75              80
Lys Leu Gln Gln Phe Ser Pro Gln Val Leu Val Ile Ser Leu Gly Val
              85              90              95
Asp Thr Phe Lys Asp Asp Pro Ile Ser His Phe Leu Leu Glu Gly Glu
              100             105             110
Asp Phe Ile Gly Ile Gly Glu Leu Ile Ala Ser Val Gly Cys Pro Thr
              115             120             125
Leu Phe Val Met Glu Gly Gly Tyr Met Val Asp Glu Ile Gly Ile Asn
              130             135             140
Ala Val Asn Val Leu His Gly Phe Glu Ser Lys Arg Ala
145              150              155

```

<210> 691  
 <211> 336  
 <212> DNA  
 <213> Homo sapiens

```

<400> 691
ntgctgcgtg aaaacgtgca gcgcggcgca tcagcgactg gcgagcgctt tggctggagt
60
tcgcaaaggc aaggcccctg ggagttggcc tgcgacatcg cgctgccgtg cgccaccag
120
aacgaactgg acgccgacgc cgcccgcacg ctgctgcgca acggctgcct ttgcgtggct
180
ggaggcgca atatgccgcc cgcgcttgag gctgtggata tctttatcga ggcgggcatt
240
ctgttcgcgc ccggcaaggc atccaatgcc ggcggcgctgg ccgtgagtgg cctggaaatg
300
tcgcagaacg ccatgcgcct gctgtggacc gccggc
336

```

<210> 692  
 <211> 112  
 <212> PRT  
 <213> Homo sapiens

```

<400> 692
Xaa Leu Arg Glu Asn Val Gln Arg Gly Ala Ser Ala Thr Gly Glu Arg
1              5              10              15
Phe Gly Trp Ser Ser Gln Arg Gln Gly Pro Trp Glu Leu Ala Cys Asp
              20              25              30
Ile Ala Leu Pro Cys Ala Thr Gln Asn Glu Leu Asp Ala Asp Ala Ala
              35              40              45
Arg Thr Leu Leu Arg Asn Gly Cys Leu Cys Val Ala Gly Gly Ala Asn
              50              55              60
Met Pro Pro Ala Leu Glu Ala Val Asp Ile Phe Ile Glu Ala Gly Ile
65              70              75              80
Leu Phe Ala Pro Gly Lys Ala Ser Asn Ala Gly Gly Val Ala Val Ser
              85              90              95
Gly Leu Glu Met Ser Gln Asn Ala Met Arg Leu Leu Trp Thr Ala Gly
              100             105             110

```

<210> 693  
 <211> 580



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 693

ngggcaaccc ggaaggtccg gcgtcccagc cgcctacctc gctgggaccc tggctctgct  
60  
gtcccccgct ggcctcctgc ccaagcgact gcggccagga tgggccggaa ggtgaccgtg  
120  
gccacctgcg cactcaacca gtggggccctg gacttcgagg gcaatttgca aagaatttta  
180  
aagagtattg aaattgccaa aaacagagga gcaagataca ggcttggacc agagctggaa  
240  
atatgcggct gcggatgttg ggatcattat tacgagtcgg acaccctctt gcactcgttt  
300  
caagtcctag cggcccttgt ggagtctccc gtcactcagg acatcatctg cgacgtgggg  
360  
atacctgtaa tgcaccgaaa cgtccgctac aactgcagag tgatattcct caacaggaag  
420  
atcctgctca tcagacccaa gatggccttg gccaatgaag gcaactaccg cgagctgcgc  
480  
tggttcaccc cgtggtcgag gagtcggtga gtcgggtgcc tgaccactcc tgggatgtgc  
540  
gttaagcacc tccgctgtgt gtagccttgg gtcttgatca  
580

&lt;210&gt; 694

&lt;211&gt; 136

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 694

Met	Gly	Arg	Lys	Val	Thr	Val	Ala	Thr	Cys	Ala	Leu	Asn	Gln	Trp	Ala
1				5				10						15	
Leu	Asp	Phe	Glu	Gly	Asn	Leu	Gln	Arg	Ile	Leu	Lys	Ser	Ile	Glu	Ile
			20					25					30		
Ala	Lys	Asn	Arg	Gly	Ala	Arg	Tyr	Arg	Leu	Gly	Pro	Glu	Leu	Glu	Ile
			35				40					45			
Cys	Gly	Cys	Gly	Cys	Trp	Asp	His	Tyr	Tyr	Glu	Ser	Asp	Thr	Leu	Leu
	50					55					60				
His	Ser	Phe	Gln	Val	Leu	Ala	Ala	Leu	Val	Glu	Ser	Pro	Val	Thr	Gln
65					70					75					80
Asp	Ile	Ile	Cys	Asp	Val	Gly	Ile	Pro	Val	Met	His	Arg	Asn	Val	Arg
			85					90					95		
Tyr	Asn	Cys	Arg	Val	Ile	Phe	Leu	Asn	Arg	Lys	Ile	Leu	Leu	Ile	Arg
			100					105					110		
Pro	Lys	Met	Ala	Leu	Ala	Asn	Glu	Gly	Asn	Tyr	Arg	Glu	Leu	Arg	Trp
		115				120						125			
Phe	Thr	Pro	Trp	Ser	Arg	Ser	Arg								
	130					135									

&lt;210&gt; 695

&lt;211&gt; 439

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 695

ntggtgactc aggcgtccaa tggcacgatg gctgacgtcg tcaatatgcc gtcctcgacc  
60  
atcatggctc tgcgagggc tgattacctg ctcgatatcg agacttcggt gcccggtatc  
120  
ggcgacaagt tcgtcccga cgtctggggc aaactcaaac tcggcaagga caacgagcac  
180  
accgctctgc cctgggtactt cggcccgttc gtcgtgacgt acaacaagga cattttcaag  
240  
gatgttgccc tcgatcccga aatcccgcgc aagacgatga ccgagtacct cgacttcgcc  
300  
aagaaaatca ccgctgccgg caagcaggcg gtctatggca acacgtcgtg gtacatgctc  
360  
gcggaatggc gtgccctcgg cgtcaaggtc atgaatgacg acttcaccaa gttcactttt  
420  
gcctcggaat ccaacgcgt  
439

&lt;210&gt; 696

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 696

Xaa	Val	Thr	Gln	Ala	Ser	Asn	Gly	Thr	Met	Ala	Asp	Val	Val	Asn	Met
1				5					10					15	
Pro	Ser	Ser	Thr	Ile	Met	Ala	Leu	Ser	Arg	Ala	Asp	Tyr	Leu	Leu	Asp
			20					25					30		
Ile	Glu	Thr	Ser	Val	Pro	Gly	Ile	Gly	Asp	Lys	Phe	Val	Pro	Asp	Val
		35					40					45			
Trp	Gly	Lys	Leu	Lys	Leu	Gly	Lys	Asp	Asn	Glu	His	Thr	Ala	Leu	Pro
	50					55					60				
Trp	Tyr	Phe	Gly	Pro	Phe	Val	Val	Thr	Tyr	Asn	Lys	Asp	Ile	Phe	Lys
65					70				75					80	
Asp	Val	Gly	Leu	Asp	Pro	Glu	Ile	Pro	Pro	Lys	Thr	Met	Thr	Glu	Tyr
			85					90						95	
Leu	Asp	Phe	Ala	Lys	Lys	Ile	Thr	Ala	Ala	Gly	Lys	Gln	Ala	Val	Tyr
			100					105					110		
Gly	Asn	Thr	Ser	Trp	Tyr	Met	Leu	Ala	Glu	Trp	Arg	Ala	Leu	Gly	Val
	115					120						125			
Lys	Val	Met	Asn	Asp	Asp	Phe	Thr	Lys	Phe	Thr	Phe	Ala	Ser	Glu	Ser
	130					135					140				
Asn	Ala														
145															

&lt;210&gt; 697

&lt;211&gt; 368

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 697

nggcaataac gccgtcgtcg aaatccgttc ccttgatctc gaacatgccg atgaagcggg  
60

tgtcggatgat ggggtcggag atgtcgccct cccacaactt gaacttgatc ggaccaaccc  
 120  
 ttccaccct ggagagactc gcctgccttg aaagtcttct tgcccttctt gggcaactga  
 180  
 tcgccctccc gaacgagata atccaagctc aagcgaccgc ccaccttgtc gcgcgcctcc  
 240  
 acaccgacgg aatgcgatgc cgggatcgca tcgatgctag cggcgggtgcg tgcaatgaca  
 300  
 atcttgtctt cacgcagcga tacgggcccgc ccgttggaat cgaacacaaa caccttgaag  
 360  
 gcgttgtn  
 368

<210> 698  
 <211> 108  
 <212> PRT  
 <213> Homo sapiens

<400> 698  
 Met Pro Met Lys Arg Leu Ser Val Met Gly Ser Glu Met Ser Pro Ser  
 1 5 10 15  
 His Asn Leu Asn Leu Ile Gly Pro Thr Leu Ser Thr Leu Glu Arg Leu  
 20 25 30  
 Ala Cys Leu Glu Ser Leu Leu Ala Leu Leu Gly Gln Leu Ile Ala Leu  
 35 40 45  
 Pro Asn Glu Ile Ile Gln Ala Gln Ala Thr Ala His Leu Val Ala Arg  
 50 55 60  
 Leu His Thr Asp Gly Met Arg Cys Arg Asp Arg Ile Asp Ala Ser Gly  
 65 70 75 80  
 Gly Ala Cys Asn Asp Asn Leu Val Phe Thr Gln Arg Tyr Gly Pro Ala  
 85 90 95  
 Val Gly Ile Glu His Lys His Leu Glu Gly Val Val  
 100 105

<210> 699  
 <211> 363  
 <212> DNA  
 <213> Homo sapiens

<400> 699  
 nacgcgtaca caaatagtat cggaatcatt tcctatcatg ctgctatgac gagatttctc  
 60  
 cacacctcag attggcaact ggggatgact cggcactacc tgtcgaagcg cggcgacgac  
 120  
 gaccacagg cacggtttac tgccgatcga atcgagacgg tgcgcaggct gggcgacgtt  
 180  
 gcccggaagg agggctgcga gtttgtcgtc gtcgccggag atgtcttcga aaccacaaat  
 240  
 gtctccactc agatcattgc ccgcgcgtgt gaggcgatag cctccattga tctccccgtg  
 300  
 tacctgctgc ccggaaatca cgacagetta gagccgggggt gtctctggga tgggccagaa  
 360  
 ttc  
 363

<210> 700  
 <211> 121  
 <212> PRT  
 <213> Homo sapiens

<400> 700  
 Xaa Ala Tyr Thr Asn Ser Ile Gly Ile Ile Ser Tyr His Ala Ala Met  
 1 5 10 15  
 Thr Arg Phe Leu His Thr Ser Asp Trp Gln Leu Gly Met Thr Arg His  
 20 25 30  
 Tyr Leu Ser Lys Arg Gly Asp Asp Asp Pro Gln Ala Arg Phe Thr Ala  
 35 40 45  
 Asp Arg Ile Glu Thr Val Arg Arg Leu Gly Asp Val Ala Arg Lys Glu  
 50 55 60  
 Gly Cys Glu Phe Val Val Val Ala Gly Asp Val Phe Glu Thr His Asn  
 65 70 75 80  
 Val Ser Thr Gln Ile Ile Ala Arg Ala Cys Glu Ala Ile Ala Ser Ile  
 85 90 95  
 Asp Leu Pro Val Tyr Leu Leu Pro Gly Asn His Asp Ser Leu Glu Pro  
 100 105 110  
 Gly Cys Leu Trp Asp Gly Pro Glu Phe  
 115 120

<210> 701  
 <211> 585  
 <212> DNA  
 <213> Homo sapiens

<400> 701  
 nacgcgtccg ggcacaccgt caccgaggcg acgttccacg gccacccac gctgatctat  
 60  
 ttcggctacg tccattgcgc ggatgtctgc ccgctgacac tgggcaacat ggtctcggcc  
 120  
 ctcgatecgc tgggctcccg ggcggacggc atcgttccga tcttcacatc cgtcgatccg  
 180  
 gcccgcgaca caccgcgct ggtcggacag tatgtcgcgc atttctcgcg gcggatcgtc  
 240  
 gggctgaccg gcaccgcagc gcagctggcg ccggtactgg cggagttcca catcaccgcg  
 300  
 cgcgccgaac ctgcggcaca cgacatggcc gccgacatgt atgccgtcga ccacagcgcc  
 360  
 ctcctctatc tgatggacgg caacaaccgc ctggttgcggg tgatggcggt cagcgccgac  
 420  
 gctgcctcgc tgacgcacca gctggcggcc ggcttggccg gggcaagaat gagaccatga  
 480  
 aagcgatcgg accgacggac gccccgaac aggcagcgcc gggctgggtc ttcggcatca  
 540  
 tcctgctgct cggcatcgcc ggcattgctc atttcgtcga ccggt  
 585

<210> 702  
 <211> 159  
 <212> PRT

<213> Homo sapiens

<400> 702

```

Xaa Ala Ser Gly His Thr Val Thr Glu Ala Thr Phe His Gly His Pro
 1           5           10           15
Thr Leu Ile Tyr Phe Gly Tyr Val His Cys Ala Asp Val Cys Pro Leu
          20           25           30
Thr Leu Gly Asn Met Val Ser Ala Leu Asp Arg Leu Gly Ser Arg Ala
          35           40           45
Asp Gly Ile Val Pro Ile Phe Ile Ser Val Asp Pro Ala Arg Asp Thr
          50           55           60
Pro Ala Leu Val Gly Gln Tyr Val Ala His Phe Ser Pro Arg Ile Val
65           70           75           80
Gly Leu Thr Gly Thr Ala Ala Gln Leu Ala Pro Val Leu Ala Glu Phe
          85           90           95
His Ile Thr Ala Arg Ala Glu Pro Ala Ala His Asp Met Ala Ala Asp
          100          105          110
Met Tyr Ala Val Asp His Ser Ala Leu Leu Tyr Leu Met Asp Gly Asn
          115          120          125
Asn Arg Leu Leu Arg Val Met Ala Val Ser Ala Asp Ala Ala Ser Leu
          130          135          140
Thr His Gln Leu Ala Ala Gly Leu Ala Gly Ala Arg Met Arg Pro
145          150          155

```

<210> 703

<211> 390

<212> DNA

<213> Homo sapiens

<400> 703

```

ttctctgctc catacacacc tcagcagaat ggcacgccc agcgcaagaa cataactctt
60
attgagatgg cccgaacgat gcttgatgag tacaagactc cgcggaagtt ctggcctgaa
120
gccattgata ctgcttgtca caccatcaac cgcgtttatc ttcacaaggt tttggagaaa
180
acctcttatg agttcctaac tggtaagaaa cccaatgtaa gctatttcag agtatttggt
240
gctaggtgct ggatcaagga tcctcatcac acttcaaaat ttgcaccgaa agcacatgaa
300
ggttttatgc ttggttacgg aaaggattcg cactcctaca gagtcttcaa cctctttcac
360
tataaagtgg ttcaaactgt ggatgtgcgn
390

```

<210> 704

<211> 130

<212> PRT

<213> Homo sapiens

<400> 704

```

Phe Ser Ala Pro Tyr Thr Pro Gln Gln Asn Gly Ile Ala Glu Arg Lys
 1           5           10           15
Asn Ile Thr Leu Ile Glu Met Ala Arg Thr Met Leu Asp Glu Tyr Lys

```

```

      20      25      30
Thr Pro Arg Lys Phe Trp Pro Glu Ala Ile Asp Thr Ala Cys His Thr
      35      40      45
Ile Asn Arg Val Tyr Leu His Lys Val Leu Glu Lys Thr Ser Tyr Glu
      50      55      60
Phe Leu Thr Gly Lys Lys Pro Asn Val Ser Tyr Phe Arg Val Phe Gly
65      70      75      80
Ala Arg Cys Trp Ile Lys Asp Pro His His Thr Ser Lys Phe Ala Pro
      85      90      95
Lys Ala His Glu Gly Phe Met Leu Gly Tyr Gly Lys Asp Ser His Ser
      100      105      110
Tyr Arg Val Phe Asn Leu Phe His Tyr Lys Val Val Gln Thr Val Asp
      115      120      125
Val Arg
      130

```

<210> 705  
 <211> 513  
 <212> DNA  
 <213> Homo sapiens

```

<400> 705
acgcgtatatt cgctccaaatg attcaaatac aaacgccgcc gttaaaaacg atgcaggcga
60
agacaatgcg aataaaaaag gtggtaaata agcatgagtt ttaaaatgac acaatctcaa
120
tacacaagtc tttatggacc aactgtagga gactccgtga gattaggaga tacgaacttg
180
tttgacaaag ttgagaaaga ctatgcaaata tatggggatg aagctacttt cgggtggcga
240
aatcaattc gtgatggat ggctcaaaat cctaattgta caagagatga taaaaatgta
300
gccgatttag ttttaactaa cgcattaatt attgattatg acaagattgt taaagcagat
360
atcggtatta aaaatgggta tatttttaag attggtaaag ctggaaaccc agatataatg
420
gataacgttg acatcatcat tgggtgcaaca actgatatta ttgctgctga aggtaaaatt
480
gttactgccg gcggtatcga tacacacgtg cac
513

```

<210> 706  
 <211> 140  
 <212> PRT  
 <213> Homo sapiens

```

<400> 706
Met Ser Phe Lys Met Thr Gln Ser Gln Tyr Thr Ser Leu Tyr Gly Pro
1      5      10      15
Thr Val Gly Asp Ser Val Arg Leu Gly Asp Thr Asn Leu Phe Ala Gln
      20      25      30
Val Glu Lys Asp Tyr Ala Asn Tyr Gly Asp Glu Ala Thr Phe Gly Gly
      35      40      45
Gly Lys Ser Ile Arg Asp Gly Met Ala Gln Asn Pro Asn Val Thr Arg

```

50	55	60
Asp Asp Lys Asn Val Ala Asp Leu Val Leu Thr Asn Ala Leu Ile Ile		
65	70	75
Asp Tyr Asp Lys Ile Val Lys Ala Asp Ile Gly Ile Lys Asn Gly Tyr		80
	85	90
Ile Phe Lys Ile Gly Lys Ala Gly Asn Pro Asp Ile Met Asp Asn Val		95
	100	105
Asp Ile Ile Ile Gly Ala Thr Thr Asp Ile Ile Ala Ala Glu Gly Lys		110
	115	120
Ile Val Thr Ala Gly Gly Ile Asp Thr His Val His		125
	130	135
		140

<210> 707  
 <211> 409  
 <212> DNA  
 <213> Homo sapiens

<400> 707  
 acgcgtggca tcctcagacc accaaagaca atcctgtcct gggaggcagg gagaaagccg  
 60  
 gcacactaca cagtgcacag gtgaagccct caggggggtcc tggagcaggg ccacctccct  
 120  
 gggggatccc caggtgccat tttcatggca gtgtctatgg acggctcccc ttggcatggt  
 180  
 gctgggtggc aatcctggct gtagctgcca cccctgccc tttttgcttc cctccgaggg  
 240  
 cattgtgatc atcagtgtga gtctgttggg aaggagagcc aggtccccag gtttgggaaa  
 300  
 ggagtagggg ttcccagcct gtctggccat cccccccag cccagcccct cctgctgggt  
 360  
 gacgtgctca gtccggcccc tgctgtactg ggaggggggt aggagcata  
 409

<210> 708  
 <211> 136  
 <212> PRT  
 <213> Homo sapiens

<400> 708
Met Leu Leu Ala Pro Ser Gln Tyr Ser Arg Gly Arg Thr Glu His Val
1 5 10 15
Thr Gln Gln Glu Gly Leu Gly Trp Gly Val Met Ala Arg Gln Ala Gly
20 25 30
Lys Pro Tyr Ser Phe Pro Lys Pro Gly Asp Leu Ala Leu Leu Pro Asn
35 40 45
Arg Leu Thr Leu Met Ile Thr Met Pro Ser Glu Gly Ser Lys Lys Gly
50 55 60
Arg Gly Trp Gln Leu Gln Pro Gly Leu Pro Pro Ser Thr Met Pro Arg
65 70 75 80
Gly Ala Val His Arg His Cys His Glu Asn Gly Thr Trp Gly Ser Pro
85 90 95
Arg Glu Val Ala Leu Leu Gln Asp Pro Leu Arg Ala Ser Pro Val His
100 105 110
Cys Val Val Cys Arg Leu Ser Pro Cys Leu Pro Gly Gln Asp Cys Leu

115 120 125  
 Trp Trp Ser Glu Asp Ala Thr Arg  
 130 135

<210> 709  
 <211> 771  
 <212> DNA  
 <213> Homo sapiens

<400> 709  
 acgcgtctga cggagagcct cctgagtctc cccacgcaga ggactcagaa agggaatcgg  
 60  
 tgaccacacc tgggccagcg acgtgtggtg cgccagcctc cccagcggat cacctcctcc  
 120  
 tccccctcca ggaggagagt ttctccgaag tccccatgag tgaagcaagc tcagcgaaag  
 180  
 acactccact ctttaggatg gagggagagg atgcccttgt gactcagtat cagagcaaag  
 240  
 ccagtgacca cgaaggttta ttgtctgacc ccttgagtga ccttcagttg gtctcagatt  
 300  
 ttaaactctcc aatcatggcc gatctgaact taagccttcc ttccattcct gaagtcgcat  
 360  
 cggatgatga aagaatagat caggttgaag atgacggaga tcaggttgaa gatgatggag  
 420  
 agacagcaaa gtcgtcaact ctggacatag gagctttgtc cttgggcttg gtagtcccct  
 480  
 gtcctgagag gggaaagggg cccagtggcg aggcagatag gttggtactg ggggagggcc  
 540  
 tgtgtgattt caggctgcaa gcaccccagg catctgtgac agtccttca gagcagacca  
 600  
 cagagtccgg aattcacaaa ccacatcttg gcaagagctc aagcttggat aaacagctgc  
 660  
 caggccccag tgggtggtgag gaagaaaaac cgatgggaaa tgggagtcca agcccgcctc  
 720  
 ctggcacatc cctggacaat cctgtaccca gcccctcccc ttctgagatc t  
 771

<210> 710  
 <211> 205  
 <212> PRT  
 <213> Homo sapiens

<400> 710  
 Met Ser Glu Ala Ser Ser Ala Lys Asp Thr Pro Leu Phe Arg Met Glu  
 1 5 10 15  
 Gly Glu Asp Ala Leu Val Thr Gln Tyr Gln Ser Lys Ala Ser Asp His  
 20 25 30  
 Glu Gly Leu Leu Ser Asp Pro Leu Ser Asp Leu Gln Leu Val Ser Asp  
 35 40 45  
 Phe Lys Ser Pro Ile Met Ala Asp Leu Asn Leu Ser Leu Pro Ser Ile  
 50 55 60  
 Pro Glu Val Ala Ser Asp Asp Glu Arg Ile Asp Gln Val Glu Asp Asp  
 65 70 75 80  
 Gly Asp Gln Val Glu Asp Asp Gly Glu Thr Ala Lys Ser Ser Thr Leu



```
<210> 711
<211> 432
<212> DNA
<213> Homo sapiens
```

```
<210> 712
<211> 93
<212> PRT
<213> Homo sapiens
```

803

```

<400> 714
Ile Leu Ile Ala Asn Gly Gly Met Gln Asn Pro Val Gly Ala Val Phe
 1          5          10          15
Asn Pro Asp Thr Met Arg Met Glu Met Thr Asp Phe Ala Ala Val Ile
          20          25          30
Phe Asn Pro Val Ala Gln Ala Lys Phe Val His Thr Val Ser Ala Gly
          35          40          45
Tyr Val Ala Gly Ala Met Phe Val Met Ser Ile Ser Ala Trp Tyr Leu
          50          55          60
Leu Lys Gly Arg His Thr Asp Leu Ala Lys Arg Ser Met Ala Val Ala
65          70          75          80
Ala Ser Phe Gly Leu Ala Ser Ala Leu Ser Val Val Val Leu Gly Asp
          85          90          95
Glu Ser Gly Tyr Leu Thr Thr Glu His Gln Lys Met Lys Ile Ala Ala
          100          105          110
Met Glu Ser Met Trp His Thr Glu Pro Ala Pro Ala Ser Phe Asn Leu
          115          120          125
Ile Ala Leu Pro Asn Gln Ala Glu Arg Lys Asn Asp Phe Ala Ile Glu
          130          135          140
Ile Pro Tyr Val Met Xaa Leu Ile Gly Thr Arg
145          150          155

```

<210> 715  
 <211> 354  
 <212> DNA  
 <213> Homo sapiens

<400> 715  
 nnaccggtgg atgccaacga atatcgtggc gagctgaaag tcggcgccat caccaccgcc  
 60  
 cagaccggcc tgctgcctca ggcactggtg cgtttgcgcc aggcagcgcc gacggtggag  
 120  
 tgcaagttgg taccgggggt ttccctggag ttgctcagcc aggtggacgc aggcgagctg  
 180  
 gactcggcga tcatcattcg cccgcccttt gatttgccca aggagttgca cgtacaggta  
 240  
 ctgcgcaagg agccgtttgt gttgatcgtg ccccaggcgg tcgggggtga tgaccggtg  
 300  
 caactgctcg aagctcatcc ccacgtgcgc tacgaccgcg cttcgtttgg cggg  
 354

<210> 716  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 716  
 Xaa Pro Val Asp Ala Asn Glu Tyr Arg Gly Glu Leu Lys Val Gly Ala  
 1 5 10 15  
 Ile Thr Thr Ala Gln Thr Gly Leu Leu Pro Gln Ala Leu Val Arg Leu  
 20 25 30  
 Arg Gln Ala Ala Pro Thr Val Glu Cys Lys Leu Val Pro Gly Val Ser  
 35 40 45  
 Leu Glu Leu Leu Ser Gln Val Asp Ala Gly Glu Leu Asp Ser Ala Ile  
 50 55 60  
 Ile Ile Arg Pro Pro Phe Asp Leu Pro Lys Glu Leu His Val Gln Val  
 65 70 75 80  
 Leu Arg Lys Glu Pro Phe Val Leu Ile Val Pro Gln Ala Val Gly Gly  
 85 90 95  
 Asp Asp Pro Leu Gln Leu Leu Glu Ala His Pro His Val Arg Tyr Asp  
 100 105 110  
 Arg Ala Ser Phe Gly Gly  
 115

<210> 717  
 <211> 401  
 <212> DNA  
 <213> Homo sapiens

<400> 717  
 acgcgtatct tttcggtaaa cctactaatt tttcattcaa cgctcgacgc ccaggtaaag  
 60  
 ccgtaagtc atctaaatag gccattctgt ggctctccat cagtaagaac caaatccata  
 120  
 ggagaagttg agcggatagt aatgcatcaa attgatgctg agaaaccgaa aaatgggaca  
 180

atataatcaa gctgacaata ctgatcaaac cactcgcacg aaagctacta ccgcttgacc  
 240  
 accaagcaga aaaaaccaat gaaatgctta aaaataaaat cgtccaaagt aaaaagctag  
 300  
 accaggtggt agccagatta aaaataggcc gctctagaaa atgaaaagaa atccaatgag  
 360  
 attcaacggc gtagcaccag cacagcaaca tagccactag t  
 401

<210> 718  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 718  
 Met Leu Leu Cys Trp Cys Tyr Ala Val Glu Ser His Trp Ile Ser Phe  
 1 5 10 15  
 His Phe Leu Glu Arg Pro Ile Phe Asn Leu Ala Thr Thr Trp Ser Ser  
 20 25 30  
 Phe Leu Leu Trp Thr Ile Leu Phe Leu Ser Ile Ser Leu Val Phe Ser  
 35 40 45  
 Ala Trp Trp Ser Ser Gly Ser Ser Phe His Ala Ser Gly Leu Ile Ser  
 50 55 60  
 Ile Val Ser Leu Ile Ile Leu Ser His Phe Ser Val Ser Gln His Gln  
 65 70 75 80  
 Phe Asp Ala Leu Leu Ser Ala Gln Leu Leu Leu Trp Ile Trp Phe Leu  
 85 90 95  
 Leu Met Glu Ser His Arg Met Ala Tyr Leu Asp Asp Leu Thr Ala Leu  
 100 105 110  
 Pro Gly Arg Arg Ala Leu Asn Glu Lys Leu Val Gly Leu Pro Lys Arg  
 115 120 125  
 Tyr Ala  
 130

<210> 719  
 <211> 685  
 <212> DNA  
 <213> Homo sapiens

<400> 719  
 tatatagggc tatctacctt attcacagca cattccatct acacaacctt gtagcggtca  
 60  
 ctcttgaagg cggattttca taggcgctgc gcctctcata ttcaagcatc aaggcaatcc  
 120  
 aatctccctg cggttggttaac tgggcaaaag aaagacctct gcagtccagc aacctcatcg  
 180  
 tgcaaagtgc gtggcgtggt caactctgac ggcttggaag ctgcagacct tgtcaaagga  
 240  
 cctcggccga aattcaccct tgatctcttt gtcttggtcca actcttgtcc ctgagaatga  
 300  
 aactgtcttc tgagagtcca tcaatgcgac gctgactcgt gagaagtgct gaatcacgtc  
 360  
 gccattttgg agacctgcca acgcagctct ggaacctgcc aggacgcctt ccacaacacc  
 420

agaacgcagc gactttgcgt taaatccaag ctcaaacc tcttgctcca caggcctgag  
 480  
 cataaaaagg tattctgcga cgggaaatgt aaagtctgag cttaggtgca gaggaccgcc  
 540  
 atcgatcagt gtctgatact gcttgctccgc gacttctttg ccgagcaatg ggtatagcgt  
 600  
 tttcaaccaa gtggaagcag tcgtttgctc accctggcga ttccggcgag ttagggacat  
 660  
 gaccacgtca tcgatgggat tttgc  
 685

<210> 720  
 <211> 161  
 <212> PRT  
 <213> Homo sapiens

<400> 720  
 Met Ser Leu Thr Arg Arg Asn Arg Gln Gly Glu Gln Thr Thr Ala Ser  
 1 5 10 15  
 Thr Trp Leu Lys Thr Leu Tyr Pro Leu Leu Gly Lys Glu Val Ala Asp  
 20 25 30  
 Lys Gln Tyr Gln Thr Leu Ile Asp Gly Gly Thr Leu His Leu Ser Ser  
 35 40 45  
 Asp Phe Thr Phe Pro Val Ala Glu Tyr Leu Phe Met Leu Arg Pro Val  
 50 55 60  
 Glu Gln Glu Val Phe Glu Leu Gly Phe Asn Ala Lys Ser Leu Arg Ser  
 65 70 75 80  
 Gly Val Val Glu Gly Val Leu Ala Gly Ser Arg Ala Ala Leu Ala Gly  
 85 90 95  
 Leu Gln Asn Gly Asp Val Ile Gln His Phe Ser Arg Val Ser Val Ala  
 100 105 110  
 Leu Met Asp Ser Gln Lys Thr Val Ser Phe Ser Gly Thr Arg Val Gly  
 115 120 125  
 Gln Asp Lys Glu Ile Lys Gly Glu Phe Arg Pro Arg Ser Phe Asp Lys  
 130 135 140  
 Val Cys Ser Phe Gln Ala Val Arg Val Asp His Ala Thr Ala Phe Ala  
 145 150 155 160  
 Arg

<210> 721  
 <211> 579  
 <212> DNA  
 <213> Homo sapiens

<400> 721  
 aagcttgga tcagggtgtg gcagtgtggc gggagtgtgg aggtcctgcc ctgctcacgg  
 60  
 attgcccaca ttgagcgagc ccacaagccc tacacagagg acctcaccgc ccatgtccgc  
 120  
 aggaacgctc tcagggtggc tgaagtctgg atggatgaat ttaaaagcca cgtctactgg  
 180  
 catggaacat accaggagga ctcaggaatt gacattgggg acatcactgc aaggaaggct  
 240

ctcaggaaac agctgcagtg caagaccttc cgggtggtacc tggtcagcgt gtacccagag  
300  
atgaggatgt actccgacat cattgcctat ggagtgtgc agaattctct gaagactgat  
360  
ttgtgtcttg accaggggcc agatacagag aatgtcccca tcatgtacat ctgccatggg  
420  
atgacgcctc agaacgtgta ctacacgagc agtcagcaga tccatgtggg cattctgagc  
480  
cccaccgtgg atgatgatga caaccgatgc ctggtggacg tcaacagccg gccccggctc  
540  
atcgaatgca gctacgcca agccaagagg atgaagctt  
579

<210> 722  
<211> 193  
<212> PRT  
<213> Homo sapiens

<400> 722  
Lys Leu Gly Ile Arg Val Trp Gln Cys Gly Gly Ser Val Glu Val Leu  
1 5 10 15  
Pro Cys Ser Arg Ile Ala His Ile Glu Arg Ala His Lys Pro Tyr Thr  
20 25 30  
Glu Asp Leu Thr Ala His Val Arg Arg Asn Ala Leu Arg Val Ala Glu  
35 40 45  
Val Trp Met Asp Glu Phe Lys Ser His Val Tyr Trp His Gly Thr Tyr  
50 55 60  
Gln Glu Asp Ser Gly Ile Asp Ile Gly Asp Ile Thr Ala Arg Lys Ala  
65 70 75 80  
Leu Arg Lys Gln Leu Gln Cys Lys Thr Phe Arg Trp Tyr Leu Val Ser  
85 90 95  
Val Tyr Pro Glu Met Arg Met Tyr Ser Asp Ile Ile Ala Tyr Gly Val  
100 105 110  
Leu Gln Asn Ser Leu Lys Thr Asp Leu Cys Leu Asp Gln Gly Pro Asp  
115 120 125  
Thr Glu Asn Val Pro Ile Met Tyr Ile Cys His Gly Met Thr Pro Gln  
130 135 140  
Asn Val Tyr Tyr Thr Ser Ser Gln Gln Ile His Val Gly Ile Leu Ser  
145 150 155 160  
Pro Thr Val Asp Asp Asp Asp Asn Arg Cys Leu Val Asp Val Asn Ser  
165 170 175  
Arg Pro Arg Leu Ile Glu Cys Ser Tyr Ala Lys Ala Lys Arg Met Lys  
180 185 190  
Leu

<210> 723  
<211> 384  
<212> DNA  
<213> Homo sapiens

<400> 723  
acgcgtcctc ttacgctcag ttttgacaat gcgtgctggc agccaaccga agccgtaaaa  
60

10/043, 649  
B2

ctcaacgaaa tgctctcgct taaaccgtgc gaaggaaccc caccgcaatg gcgcttattc  
120  
cgcggaagggg attaccaaatt gcgcattgat acgcgctccg gaacgcctac gctgatgctt  
180  
accgtacaaa gtgtaaccga caaacctgtt acggacgtca ctcgacaatg tcctaaatgg  
240  
gacggcaagc ccttcaccct tgacgtaacg aatacattcc cggaaggctc cgtcgtacga  
300  
gacttctaca gcaagcaaac cgctatgggtg cagcaaggta aaatcacact tcagcctgcc  
360  
gctaacagca atggcctgct gctg  
384

<210> 724  
<211> 128  
<212> PRT  
<213> Homo sapiens

<400> 724  
Thr Arg Pro Leu Thr Leu Ser Phe Asp Asn Ala Cys Trp Gln Pro Thr  
1 5 10 15  
Glu Ala Val Lys Leu Asn Glu Met Leu Ser Leu Lys Pro Cys Glu Gly  
20 25 30  
Thr Pro Pro Gln Trp Arg Leu Phe Arg Glu Gly Asp Tyr Gln Met Arg  
35 40 45  
Ile Asp Thr Arg Ser Gly Thr Pro Thr Leu Met Leu Thr Val Gln Ser  
50 55 60  
Val Thr Asp Lys Pro Val Thr Asp Val Thr Arg Gln Cys Pro Lys Trp  
65 70 75 80  
Asp Gly Lys Pro Leu Thr Leu Asp Val Thr Asn Thr Phe Pro Glu Gly  
85 90 95  
Ser Val Val Arg Asp Phe Tyr Ser Lys Gln Thr Ala Met Val Gln Gln  
100 105 110  
Gly Lys Ile Thr Leu Gln Pro Ala Ala Asn Ser Asn Gly Leu Leu Leu  
115 120 125

<210> 725  
<211> 521  
<212> DNA  
<213> Homo sapiens

<400> 725  
tcatgacttg ctttattgca gtggtctgga actggttgat ggaacgaatt ttatctagag  
60  
cctggtgaac agcttcccag gtgtgcattt agggcctcct agggatcatc aaagttttta  
120  
gaaaataggt ttccttcttc cacaggcatg gagaaggaag gaaattttgc actggccttt  
180  
gggaagctga agaagagctg gggggaggct tgttctgaca aaatagtgac tctctccctg  
240  
cttgaaatgt cccacagaag gctgtttctg gttcacattt gccctctag gtccactccc  
300  
tccccttcat cctgctcact gccagagaga ctatgctggg agtgggtgcat cggtgggtctc  
360

caggcccttt taggtcaag gtgttcattc cctggtcct tccctgccat gtctttgttc  
 420  
 ctctctccct ccttcccata ccagcagcca cctctctcct tccaccagac ctgggaacca  
 480  
 tcatcccaac cacaatcacc ccgtgggttct attacacgcg t  
 521

<210> 726  
 <211> 124  
 <212> PRT  
 <213> Homo sapiens

<400> 726  
 Met Glu Lys Glu Gly Asn Phe Ala Leu Ala Phe Gly Lys Leu Lys Lys  
 1 5 10 15  
 Ser Trp Gly Glu Ala Cys Ser Asp Lys Ile Val Thr Leu Ser Leu Leu  
 20 25 30  
 Glu Met Ser His Arg Arg Leu Phe Leu Val His Ile Cys Pro Ser Arg  
 35 40 45  
 Ser Thr Pro Ser Pro Ser Ser Cys Ser Leu Pro Glu Arg Leu Cys Trp  
 50 55 60  
 Glu Trp Cys Ile Gly Gly Leu Gln Ala Leu Leu Gly Ser Arg Cys Ser  
 65 70 75 80  
 Phe Pro Gly Ser Phe Pro Ala Met Ser Leu Phe Leu Pro Pro Ser Phe  
 85 90 95  
 Pro Ser Gln Gln Pro Pro Ser Ser Phe His Gln Thr Trp Glu Pro Ser  
 100 105 110  
 Ser Gln Pro Gln Ser Pro Arg Gly Ser Ile Thr Arg  
 115 120

<210> 727  
 <211> 629  
 <212> DNA  
 <213> Homo sapiens

<400> 727  
 naccggtggt cgtcccaact ccggtgtcta cgcccgacg aaccagattg gtgctccggc  
 60  
 tctgttgctt gacggcacgg tggctcagga ctcatctcg ggaaccttgg cgactcgcg  
 120  
 tgccattatc gacgctggtg agttgaaggc tccgacgcat cgggcgtttg cgtcaatcag  
 180  
 tgccgcccgc cagcaggtcc aaggagaact cgaatgaatc cgaatgacta cctggtgctc  
 240  
 tcggcgatct tgttcgctat cggcatcgtg ggcttctga cgaggcgtaa tgccctggtg  
 300  
 gcctttatgt cgggtggagt gatgctcaac gccgcgaacc tggcgctggt gactttcgct  
 360  
 cacgtacacg gctctctcga cggacaggtc ggggttttct tcgtgatgat cgtggcagcc  
 420  
 gctgaggtgg ttgtcggttt ggcgatcatt gtcactatct tccgttcccg tcgcaccact  
 480  
 tcggtggacg acaccaacct gctgaagttc tgaggagggt accgtgactg tcttggaac  
 540



cggcttggtc aacgtggcct ggctcatgat tgcggtgcc a ctggtgggtg ccgcgctgct  
 600  
 attggtgctg ggacgccgca gcgacgcgt  
 629

<210> 728  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 728  
 Met Asn Pro Asn Asp Tyr Leu Val Leu Ser Ala Ile Leu Phe Ala Ile  
 1 5 10 15  
 Gly Ile Val Gly Phe Leu Thr Arg Arg Asn Ala Leu Val Ala Phe Met  
 20 25 30  
 Ser Val Glu Leu Met Leu Asn Ala Ala Asn Leu Ala Leu Val Thr Phe  
 35 40 45  
 Ala His Val His Gly Ser Leu Asp Gly Gln Val Gly Val Phe Phe Val  
 50 55 60  
 Met Ile Val Ala Ala Ala Glu Val Val Val Gly Leu Ala Ile Ile Val  
 65 70 75 80  
 Thr Ile Phe Arg Ser Arg Arg Thr Thr Ser Val Asp Asp Thr Asn Leu  
 85 90 95  
 Leu Lys Phe

<210> 729  
 <211> 4716  
 <212> DNA  
 <213> Homo sapiens

<400> 729  
 nnaggagaga agaaattgaa aagcaggcac ttgagaagtc taagagaagc ttttaagacgt  
 60  
 ttaaggaaat gctgcaggac agggaatccc aaaatcaaaa gtctacagtt ccgtcaagaa  
 120  
 ggagaatgta ttcttttgat gatgtgctgg aggaaggaaa gcgacccccct acaatgactg  
 180  
 tgtcagaagc aagttaccag agtgagagag tagaagagaa gggagcaact tattcttcag  
 240  
 aaattcccaa agaagattct accacttttg caaaaagaga ggaccctgtg aacaactgaa  
 300  
 attcagcttc cttctcaaag tcctgtggaa gaacaaagcc cagcctcttt gtcttctctg  
 360  
 cgttcacgga gcacacaaat ggaatcaact cgtgtttcag cttctctccc cagaagttac  
 420  
 cggaaaactg atacagtcag gttaacatct gtggtcacac caagaccctt tggctctcag  
 480  
 acaaggggaa tctcatcact cccagatct tacacgatgg atgatgcttg gaagtataat  
 540  
 ggagatgttg aagacattaa gagaactcca aacaatgtgg tcagcacccc tgcaccaagc  
 600  
 ccggacgcaa gccaaactggc ttcaagctta tctagccaga aagaggtagc agcaacagaa  
 660

gaagatgtga caaggctgcc ctctcctaca tcccccttct catctctttc ccaagaccag  
720  
gctgccactt ctaaagccac attgtcttcc acatctgggc ttgatttaac gtctgaatct  
780  
ggagaagggg aaatctcccc acaaagagaa gtctcaagat cccaggatca gttcagtgat  
840  
atgagaatca gcataaacca gacgcctggg aagagtcttg actttgggtt tacaataaaa  
900  
tggtgatatt ctgggatctt cgtagcatca gttgaagcag gtagcccagc agaattttct  
960  
cagctacaag tagatgatga aattattgct attaacaaca ccaagttttc atataacgat  
1020  
tcaaaagagt gggaggaagc catggctaag gctcaagaaa ctggacacct agtgatggat  
1080  
gtgaggcgct atggaaaggc tggttcacct gaaacaaagt ggattgatgc aacttctgga  
1140  
atttacaact cagaaaaatc ttcaaactca tctgtaacaa ctgattttct cgaaagcctt  
1200  
cagagttcta atattgaatc caaagaaatc aatggaattc atgatgaaag caatgctttt  
1260  
gaatcaaaag catctgaatc catttctttg aaaaacttaa aaaggcgatc acaatttttt  
1320  
gaacaaggaa gctctgattc ggtggttcct gatcttccag ttccaaccat cagtgcctcg  
1380  
agtcgctggg tgtgggatca agaggaggag cggaagcggc aggagagggtg gcagaaggag  
1440  
caggaccgcc tactgcagga aaaatatcaa cgtgagcagg agaaactgag ggaagagtgg  
1500  
caaagggcca aacaggaggc agagagagag aattccaagt acttgatga ggaactgatg  
1560  
gtcctaagct caaacagcat gtctctgacc acacgggagc cctctcttgc cacctgggaa  
1620  
gctacctgga gtgaagggtc caagtcttca gacagagaag gaacccgagc aggagaagag  
1680  
gagaggagac agccacaaga ggaagtgtgt catgaggacc aaggaaagaa gccgcaggat  
1740  
cagcttggtt ttgagagaga gaggaaatgg gagcaacagc ttcaggaaga gcaagagcaa  
1800  
aagcggcttc aggctgaggc tgaggagcag aagcgtcctg cggaggagca gaagcgccag  
1860  
gcagagatag agcgggaaac atcagtcaga atataaccagt acaggaggcc tgttgattcc  
1920  
tatgatatac caaagacaga agaagcatct tcaggttttc ttcttggtga caggaataaa  
1980  
tccagatcta ctactgaact ggatgattac tccacaaata aaaatggaaa caataaatat  
2040  
ttagaccaa ttgggaacac gacctcttca cagaggagat ccaagaaaga acaagtacca  
2100  
tcaggagcag aattggagag gcaacaaatc cttcaggaaa tgaggaagag aacaccctt  
2160  
cacaatgaca acagctggat ccgacagcgc agtgccagtg tcaacaaaga gcctgttagt  
2220  
cttcctggga tcatgagaag aggcgaatct ttagataacc tggactcccc ccgatccaat  
2280

tcttgagac agcctccttg gctcaatcag cccacaggat tctatgcttc ttcctctgtg  
2340  
caagacttta gtcgcccacc acctcagctg gtgtccacat caaacctgtg ctacatgcgg  
2400  
aaccctcct ccagcgtgcc cccaccttca gctggctccg tgaagacctc caccacaggt  
2460  
gtggccacca cacagtcccc caccctcgaga agccattccc cttcagcttc acagtcaggc  
2520  
tttcagctgc gtaacaggtc agtcagtggg aagcgcatat gctcctactg caataacatt  
2580  
ctgggcaaag gagccgccat gatcatcgag tccctgggtc tttgttatca tttgcattgt  
2640  
tttaagtgtg ttgcctgtga gtgtgacctc ggaggctcct cctcaggagc tgaagtcagg  
2700  
atcagaaacc accaactgta ctgcaacgac tgctatctca gattcaaacc tggacggcca  
2760  
accgccatgt gatgtaagcc tccatacgaa agcactgttg cagatagaag aagagggtgt  
2820  
tgctgctcat gtagatctat aaatatgtgt tgtatgtcct ttttgctttt ttttttaaaa  
2880  
aaaagaataa ctttttttgc ctcttttagat tacatagaag cattgtagtc ttggtagaac  
2940  
cagtattttt gttgtttatt tataaggtaa ttgtgtgtgg ggaaaagtgc agtatttacc  
3000  
tgttgaattc agcatcttga gagcacaagg gaaaaaataa gaacctacga atatttttga  
3060  
ggcagataat gatctagttt gactttctag ttagtggtgt tttgaagagg gtattttatt  
3120  
gttttttaaa aaaaggttct taaacattat ttgaaatagt taatataaat acataattgc  
3180  
atttgctctg tttattgtaa tgtattctaa attaatgcag aaccatatgg aaaatttcat  
3240  
taaaatctat ccccaaagt gctttctgta tccctccttc tacctattat tctgattttt  
3300  
aaaaatgcag ttaatgtacc atttatttgc ttgatgaagg gagctctatt ttctttacca  
3360  
gaaatgttgc taagtaattc ccaatagaaa gctgcttatt ttcattaatg aaaaataacc  
3420  
atggtttgta tactagaagt cttcttcaga aactgggtgag cctttctgtt caattgcatt  
3480  
tgtaaataaa cttgctgatg catttaacga gtgggtcgtc tttttcttag gtgtatgtgt  
3540  
ctgacctcag gccttttagc catatttcag tatgtggcct tttttgatgt tatgttttat  
3600  
ccagtagctt tactaaggta taattgatgt aataaactgc atatatttaa agtgataact  
3660  
ttgacaaatt ttgacatggt gtataccttc gaaactatgc cacagtctgg atgtgtttac  
3720  
tgaaacattt taataaggaa gtttattttt gataaagtta tgtttttgga tacaatatat  
3780  
ttgtatggtg agagtgatga attgttggat catttgaata aaatctttta ctaaccccat  
3840  
gataaaagga gaagacaaca gtgagcttag aatatctata aagcaaaaaa ttagtctctt  
3900

tgttttaaaaa atctggagcg ggaatgcaag gatacaaaac tttagcatgc tttgagcaaa  
 3960  
 aattttaaact tactggaatc ttttataata atgtaagtgg aatggaggat tctaggaact  
 4020  
 gagaactgta ttggaatagg ttcaaaatat gtaagaaatg ctaatgtggg agataaaaat  
 4080  
 tttatttagt acttattctg attattatta aagtaataat gtgttccttg aggataactt  
 4140  
 gtcaaagcc ccaaagcata aagaatataa ttctgaatcc caaattccaa agacaagaac  
 4200  
 tctgtgtttg aattcattct gcatataact atttataagt atagattgtg aatttttcca  
 4260  
 tgttcttaaa attattttta tcttttttca tggttgcata gtgctccatt gtttggcctt  
 4320  
 ggtaatatct agttgataat tccattactg tgtatttttc acttgtttct aagatcaaac  
 4380  
 attttaatat gtgcatgtta tatataaata tgtaaattct gtgatactct atgatcatct  
 4440  
 ctttctttat attattttca tagacatgaa atagttgctc agagattatg cattttaaga  
 4500  
 cactcatagt atatattgcc aaagtgggtt ccagaaaggc actgctggct tgcactccta  
 4560  
 taagcagcac gtgggcttgt tcatctcact gcatgtttat gaagatacag ttcttttgcc  
 4620  
 ttgttctctg cctgatgtgt atgcagaggc agccctcaat atgcagtggg tgaataaatg  
 4680  
 aatgaagaaa ccactatcaa aaaaaaaaaa aaaaaa  
 4716

<210> 730  
 <211> 797  
 <212> PRT  
 <213> Homo sapiens

<400> 730  
 Met Glu Ser Thr Arg Val Ser Ala Ser Leu Pro Arg Ser Tyr Arg Lys  
 1 5 10 15  
 Thr Asp Thr Val Arg Leu Thr Ser Val Val Thr Pro Arg Pro Phe Gly  
 20 25 30  
 Ser Gln Thr Arg Gly Ile Ser Ser Leu Pro Arg Ser Tyr Thr Met Asp  
 35 40 45  
 Asp Ala Trp Lys Tyr Asn Gly Asp Val Glu Asp Ile Lys Arg Thr Pro  
 50 55 60  
 Asn Asn Val Val Ser Thr Pro Ala Pro Ser Pro Asp Ala Ser Gln Leu  
 65 70 75 80  
 Ala Ser Ser Leu Ser Ser Gln Lys Glu Val Ala Ala Thr Glu Glu Asp  
 85 90 95  
 Val Thr Arg Leu Pro Ser Pro Thr Ser Pro Phe Ser Ser Leu Ser Gln  
 100 105 110  
 Asp Gln Ala Ala Thr Ser Lys Ala Thr Leu Ser Ser Thr Ser Gly Leu  
 115 120 125  
 Asp Leu Met Ser Glu Ser Gly Glu Gly Glu Ile Ser Pro Gln Arg Glu  
 130 135 140  
 Val Ser Arg Ser Gln Asp Gln Phe Ser Asp Met Arg Ile Ser Ile Asn

145		150		155		160
Gln Thr Pro Gly Lys Ser Leu Asp Phe Gly Phe Thr Ile Lys Trp Asp						
	165		170		175	
Ile Pro Gly Ile Phe Val Ala Ser Val Glu Ala Gly Ser Pro Ala Glu						
	180		185		190	
Phe Ser Gln Leu Gln Val Asp Asp Glu Ile Ile Ala Ile Asn Asn Thr						
	195		200		205	
Lys Phe Ser Tyr Asn Asp Ser Lys Glu Trp Glu Glu Ala Met Ala Lys						
	210		215		220	
Ala Gln Glu Thr Gly His Leu Val Met Asp Val Arg Arg Tyr Gly Lys						
225		230		235		240
Ala Gly Ser Pro Glu Thr Lys Trp Ile Asp Ala Thr Ser Gly Ile Tyr						
	245		250		255	
Asn Ser Glu Lys Ser Ser Asn Leu Ser Val Thr Thr Asp Phe Ser Glu						
	260		265		270	
Ser Leu Gln Ser Ser Asn Ile Glu Ser Lys Glu Ile Asn Gly Ile His						
	275		280		285	
Asp Glu Ser Asn Ala Phe Glu Ser Lys Ala Ser Glu Ser Ile Ser Leu						
	290		295		300	
Lys Asn Leu Lys Arg Arg Ser Gln Phe Phe Glu Gln Gly Ser Ser Asp						
305		310		315		320
Ser Val Val Pro Asp Leu Pro Val Pro Thr Ile Ser Ala Pro Ser Arg						
	325		330		335	
Trp Val Trp Asp Gln Glu Glu Glu Arg Lys Arg Gln Glu Arg Trp Gln						
	340		345		350	
Lys Glu Gln Asp Arg Leu Leu Gln Glu Lys Tyr Gln Arg Glu Gln Glu						
	355		360		365	
Lys Leu Arg Glu Glu Trp Gln Arg Ala Lys Gln Glu Ala Glu Arg Glu						
	370		375		380	
Asn Ser Lys Tyr Leu Asp Glu Glu Leu Met Val Leu Ser Ser Asn Ser						
385		390		395		400
Met Ser Leu Thr Thr Arg Glu Pro Ser Leu Ala Thr Trp Glu Ala Thr						
	405		410		415	
Trp Ser Glu Gly Ser Lys Ser Ser Asp Arg Glu Gly Thr Arg Ala Gly						
	420		425		430	
Glu Glu Glu Arg Arg Gln Pro Gln Glu Glu Val Val His Glu Asp Gln						
	435		440		445	
Gly Lys Lys Pro Gln Asp Gln Leu Val Ile Glu Arg Glu Arg Lys Trp						
	450		455		460	
Glu Gln Gln Leu Gln Glu Glu Gln Glu Gln Lys Arg Leu Gln Ala Glu						
465		470		475		480
Ala Glu Glu Gln Lys Arg Pro Ala Glu Glu Gln Lys Arg Gln Ala Glu						
	485		490		495	
Ile Glu Arg Glu Thr Ser Val Arg Ile Tyr Gln Tyr Arg Arg Pro Val						
	500		505		510	
Asp Ser Tyr Asp Ile Pro Lys Thr Glu Glu Ala Ser Ser Gly Phe Leu						
	515		520		525	
Pro Gly Asp Arg Asn Lys Ser Arg Ser Thr Thr Glu Leu Asp Asp Tyr						
	530		535		540	
Ser Thr Asn Lys Asn Gly Asn Asn Lys Tyr Leu Asp Gln Ile Gly Asn						
545		550		555		560
Thr Thr Ser Ser Gln Arg Arg Ser Lys Lys Glu Gln Val Pro Ser Gly						
	565		570		575	
Ala Glu Leu Glu Arg Gln Gln Ile Leu Gln Glu Met Arg Lys Arg Thr						

580 585 590  
 Pro Leu His Asn Asp Asn Ser Trp Ile Arg Gln Arg Ser Ala Ser Val  
 595 600 605  
 Asn Lys Glu Pro Val Ser Leu Pro Gly Ile Met Arg Arg Gly Glu Ser  
 610 615 620  
 Leu Asp Asn Leu Asp Ser Pro Arg Ser Asn Ser Trp Arg Gln Pro Pro  
 625 630 635 640  
 Trp Leu Asn Gln Pro Thr Gly Phe Tyr Ala Ser Ser Ser Val Gln Asp  
 645 650 655  
 Phe Ser Arg Pro Pro Pro Gln Leu Val Ser Thr Ser Asn Arg Ala Tyr  
 660 665 670  
 Met Arg Asn Pro Ser Ser Ser Val Pro Pro Pro Ser Ala Gly Ser Val  
 675 680 685  
 Lys Thr Ser Thr Thr Gly Val Ala Thr Thr Gln Ser Pro Thr Pro Arg  
 690 695 700  
 Ser His Ser Pro Ser Ala Ser Gln Ser Gly Ser Gln Leu Arg Asn Arg  
 705 710 715 720  
 Ser Val Ser Gly Lys Arg Ile Cys Ser Tyr Cys Asn Asn Ile Leu Gly  
 725 730 735  
 Lys Gly Ala Ala Met Ile Ile Glu Ser Leu Gly Leu Cys Tyr His Leu  
 740 745 750  
 His Cys Phe Lys Cys Val Ala Cys Glu Cys Asp Leu Gly Gly Ser Ser  
 755 760 765  
 Ser Gly Ala Glu Val Arg Ile Arg Asn His Gln Leu Tyr Cys Asn Asp  
 770 775 780  
 Cys Tyr Leu Arg Phe Lys Ser Gly Arg Pro Thr Ala Met  
 785 790 795

&lt;210&gt; 731

&lt;211&gt; 513

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 731

tcgcgagcac actccagcct ctgcttttct cagtggcttg gccagaacag aatttgttct  
 60  
 actcgaatga cccagattc cctccaagaa cttccctcct ctcattcagc ttctctggat  
 120  
 tcttcaaagt actgactggg gaaacagatt gttggaaaaa cactttcggg ttgcctcgat  
 180  
 ggggtcaata cttatcagg ccacaggaaa gacaaaggaa aatgcttcct gctggagcat  
 240  
 gtgcacatat gttgttcctt taactccaaa tacgtatgca ggggtggtgg taggatcaga  
 300  
 aaatgtgtga tcagaaagt accagttccc caccattttg tgtgggtttt attttctttc  
 360  
 tgctccgtgt tgactctttt cccacaaca cggaagctgc ttaatccaaa gacttggacc  
 420  
 atttcattct gtttcagatc cattccaaca aaatgatcag ttggtggctt atgtaaaaag  
 480  
 cagctccatg actacattta aatattgact agt  
 513

&lt;210&gt; 732

<400> 732

```
<210> 733
<211> 4366
<212> DNA
<213> Homo sapiens
```

<400> 733

817



tcgctgaagc ttcaggacct catcgaagag attcgcgggg ccaagactca ggcccaggag  
840  
cgggaggtga tccaaaagga gtgtgcccac atccgggcct ccttccgcga cggggaccca  
900  
gtgcacaggc accggcagct ggccaaactg ctctacgtcc acatgttggg ctaccccgcc  
960  
cactttggac agatggagtg cctgaaactg atcgccctct ccagattcac agacaagagg  
1020  
gtgggctacc tggggggccat gcttctattg gatgagaggc acgatgcca cctgctcatt  
1080  
accaacagca tcaagaatga cctgagccag gggattcagc cagtacaagg cctggccttg  
1140  
tgcactttga gcaccatggg ctctgctgag atgtgccgag acctggcccc agagggtggag  
1200  
aaactgctcc tgcagcccag tccctacgtg cgcaagaagg ctattctgac tgcagtgcac  
1260  
atgatccgga aggtccctga actctccagt gtcttctctc caccctgtgc ccaactgctt  
1320  
catgagcgtc accatggcat cctgctgggc accatcacgc tgatcacgga gctctgcgaa  
1380  
cgaagccctg cagccctcag gcacttccga aagggtgtac cccagctggc acacatcctc  
1440  
cggactctgg tgacaatggg atactccaca gaacacagca tatctggagt cagcgacccc  
1500  
ttcctgcagg tccagatact tcgtctgctt cggatcctgg gccggaacca cgaggagagc  
1560  
agtgagacca tgaatgactt gctggcccag gtggccacta acacggacac cagccgaaat  
1620  
gccggaatg cggtcctgtt tgagacagta ctcaccatca tggatatccg ctctgcagct  
1680  
ggcctacggg ttctagctgt caacattctt ggctcgcttc tactcaacag tgacaggaac  
1740  
attaggtatg tagccctgac atcactgctt cgactgggtg agtctgatca cagtgtgtg  
1800  
cagcggcatc ggcccactgt ggtggaatgt ctacgggaaa ctgatgcctc cctcagccgg  
1860  
tgagccctgg aactaagcct ggctctggta aatagctcca atgtgcgagc catgatgcaa  
1920  
gagctgcagg cctttctgga gtctgacct cctgacctac gggctgactg tgcctcaggc  
1980  
atcctgctgg ctgcagagag gtttgctcca accaaacgct ggcacataga caccatcctg  
2040  
catgtgctga caacggcggg caccatgtg cgggatgatg cagtggccaa cctgacctag  
2100  
ctgattgggg gggcccagga gctacatgcc tactctgtgc gccgcctcta caatgccctg  
2160  
gcagaagaca tttcccagca accactggtg cagggtggcag cctggtgcat tggggagtat  
2220  
ggggacctcc tgctggcagg gaactgagag gagattgagc cccttcaggc ggacgaagag  
2280  
gaagtgtggt cattgtctga aaagggtgtg cagtcccaca tgtccctgcc agccactcga  
2340  
ggatatgccc tcacagccct catgaagctc agcactcgcc tctgtgggga caacaaccgc  
2400



atccgccagg tgggtgtccat ctacgggagc tgcttggacg tggagctgca gcagcgggct  
2460  
gtggagtatg acacactctt ccggaatac gaccacatga gggctgccat cctggaaaaa  
2520  
atgcctcttg tggagcgaga tggccctcag gctgatgagg aagcaaagga aagcaaagaa  
2580  
gcagcccagc ttccagaagc agccccagtg cccacagagc cccaggcctc acagctcctg  
2640  
gatctgctag atctcctgga tggggcttct ggggatgtcc agcatcctcc ccatctggac  
2700  
ccctccccag gaggtgccct ggtacacctg cttgaccttc cctgtgtacc tccaccccc  
2760  
gctcccatcc cagatctcaa agtgtttgag cgtgaggag tacagctgaa tctgtcttcc  
2820  
attcgacccc ctgaaaaccc tgctttgctg ttaatcacca tcaactgccac caacttctca  
2880  
gaggggtgatg tcacccatct catctgccag gctgctgtgc ccaagagtct ccagctgcag  
2940  
ctgcaggccc ccagtgggaa cacagttcca gctcgggggtg gccttcctat caccagctc  
3000  
ttcagaatcc tcaatcctaa caaggccccc ctgcggctaa agctgcgcct cacctacgac  
3060  
cactttcacc agtcgggtgca ggagatcttt gaggtgaaca acttgccctgt ggaatcgtgg  
3120  
cagtaactgt ctccactcac agcctgaaat tctcctgtgt cccaaacccc agggggcccc  
3180  
agcagcttcg aacctacacc tgagggttac cagcagggtg cgctctggct ttgcactgca  
3240  
aaaactgggg accagccccc ttctcccaca aataaagccc aataaagcct gagaagtgag  
3300  
gaaagccata tttgggtata tttgaagtgg aaagtgtgta tgaataacag caagggaaga  
3360  
gcattcttac ataggaggta tgcattctcc cctgagcctt gagaacctgt ctcaacacgg  
3420  
gggcggggag ggggcagctg ttggttcttt ctaaccctct ccaggtcagg gaacaaatct  
3480  
gcccctaaac ttccacagga ggcactctac cctctgggcc agagctgggc acagtggcaa  
3540  
agtcagatta gaatttctag agttctaaca gcgattccca accatttcct caacttttct  
3600  
tctgtttccc acatcccaag gcagggaaat ccctgctgcc tctcctcatc ttctaactca  
3660  
gctgtaaggc ggtttaggag ccgctggcag aatcaatggc atcgaccaag ggaggggggg  
3720  
tggcaaggga ttttcctgtg cttaactact gatcacggct aagtggaaat cctataaaca  
3780  
cgagcggaaa tcaatggagg ctgcttagcg gccaggggag aggggcggcc cacagattgc  
3840  
atctgacgga tgagcgagag gaagcagcca gggagggctc aaggaagagt agcttagagg  
3900  
agggggaaga aacaggcagc gctggagaga gaggagtcac tgtcagaagg gacactgagg  
3960  
ggagaggcac agtgggcccga ggagtggact ccgttagacc cagagttccc ttccccttct  
4020

aggaagtgtac acccctagcc caggcagtgg tcaggatctt cagtctcctg tggcctctct  
 4080  
 ctggagctgt tcacttctag caggcgctga tagtcttgag gccggaaacg ctgtagatac  
 4140  
 acaatcagct tggctggtgc tgtctcctgt gcaggcacac ctcaaagccc gagagtctcc  
 4200  
 tcgcgggacc cacagagggg gaaggagacc cacgccatac actcgcgagg aatgccggga  
 4260  
 gcagttccgg atcccggacc tcggcccgac cctccgcgcg cccggcaggt cccggcacca  
 4320  
 gcggccatat tacgcccgtt gtggcggtgc cgagagcagg ccaggc  
 4366

<210> 734

<211> 364

<212> PRT

<213> Homo sapiens

<400> 734

Met	Val	Val	Pro	Ser	Leu	Lys	Leu	Gln	Asp	Leu	Ile	Glu	Glu	Ile	Arg
1				5					10					15	
Gly	Ala	Lys	Thr	Gln	Ala	Gln	Glu	Arg	Glu	Val	Ile	Gln	Lys	Glu	Cys
			20					25					30		
Ala	His	Ile	Arg	Ala	Ser	Phe	Arg	Asp	Gly	Asp	Pro	Val	His	Arg	His
		35					40					45			
Arg	Gln	Leu	Ala	Lys	Leu	Leu	Tyr	Val	His	Met	Leu	Gly	Tyr	Pro	Ala
	50					55					60				
His	Phe	Gly	Gln	Met	Glu	Cys	Leu	Lys	Leu	Ile	Ala	Ser	Ser	Arg	Phe
65					70					75					80
Thr	Asp	Lys	Arg	Val	Gly	Tyr	Leu	Gly	Ala	Met	Leu	Leu	Leu	Asp	Glu
			85						90					95	
Arg	His	Asp	Ala	His	Leu	Leu	Ile	Thr	Asn	Ser	Ile	Lys	Asn	Asp	Leu
			100					105						110	
Ser	Gln	Gly	Ile	Gln	Pro	Val	Gln	Gly	Leu	Ala	Leu	Cys	Thr	Leu	Ser
		115					120					125			
Thr	Met	Gly	Ser	Ala	Glu	Met	Cys	Arg	Asp	Leu	Ala	Pro	Glu	Val	Glu
	130					135					140				
Lys	Leu	Leu	Leu	Gln	Pro	Ser	Pro	Tyr	Val	Arg	Lys	Lys	Ala	Ile	Leu
145					150					155				160	
Thr	Ala	Val	His	Met	Ile	Arg	Lys	Val	Pro	Glu	Leu	Ser	Ser	Val	Phe
			165						170					175	
Leu	Pro	Pro	Cys	Ala	Gln	Leu	Leu	His	Glu	Arg	His	His	Gly	Ile	Leu
			180					185					190		
Leu	Gly	Thr	Ile	Thr	Leu	Ile	Thr	Glu	Leu	Cys	Glu	Arg	Ser	Pro	Ala
		195					200					205			
Ala	Leu	Arg	His	Phe	Arg	Lys	Val	Val	Pro	Gln	Leu	Val	His	Ile	Leu
	210					215					220				
Arg	Thr	Leu	Val	Thr	Met	Gly	Tyr	Ser	Thr	Glu	His	Ser	Ile	Ser	Gly
225					230					235				240	
Val	Ser	Asp	Pro	Phe	Leu	Gln	Val	Gln	Ile	Leu	Arg	Leu	Leu	Arg	Ile
			245						250					255	
Leu	Gly	Arg	Asn	His	Glu	Glu	Ser	Ser	Glu	Thr	Met	Asn	Asp	Leu	Leu
			260					265					270		
Ala	Gln	Val	Ala	Thr	Asn	Thr	Asp	Thr	Ser	Arg	Asn	Ala	Gly	Asn	Ala

```

                275                280                285
Val Leu Phe Glu Thr Val Leu Thr Ile Met Asp Ile Arg Ser Ala Ala
                290                295                300
Gly Leu Arg Val Leu Ala Val Asn Ile Leu Gly Arg Phe Leu Leu Asn
305                310                315                320
Ser Asp Arg Asn Ile Arg Tyr Val Ala Leu Thr Ser Leu Leu Arg Leu
                325                330                335
Val Gln Ser Asp His Ser Ala Val Gln Arg His Arg Pro Thr Val Val
                340                345                350
Glu Cys Leu Arg Glu Thr Asp Ala Ser Leu Ser Arg
                355                360

```

<210> 735  
 <211> 597  
 <212> DNA  
 <213> Homo sapiens

```

<400> 735
gtcgactagc caaaccgccc gggaaagtct tgtaccaccg atcctgggtt atgcggatct
60
catcgccacc atggactcgc gcaatctgga aaccgccaac cttattccag aaaaaataat
120
tgcttggtgt cctcgatccc gctctgaccg cccactggac cgctcaaccc aggacatcct
180
cagtgccatc cacgacgtgg ctgcaccgct ggcactaccc atcttcgtgg tgggtgccac
240
agcgcgcgac attctgctga cacacgtgtt cggtatcgag accggacgtg ccacgctcga
300
cgtggatttc gccgttgccg tagaacattg gccgcagttc gaaaacatca agcagcacct
360
gctagccaac gaccatttcg actctgccgc cagcatcacc catcgactgc tctatcgcac
420
gagcgacaac acgatcgccc ggccaatcga tctcatccca ttcggcggca tcgaacagcc
480
gccagccacc atcaaattggc cgcccgcacat ggctgtcatg atgaatgttg ctggctacgc
540
agatgcctgg cgggccgcag tcgaagtaga gtttgtgccc gggcgcagca tacgcgt
597

```

<210> 736  
 <211> 175  
 <212> PRT  
 <213> Homo sapiens

```

<400> 736
Met Asp Ser Arg Asn Leu Glu Thr Ala Asn Leu Ile Pro Glu Lys Ile
1                5                10                15
Ile Ala Trp Cys Pro Arg Ser Arg Ser Asp Arg Pro Leu Asp Arg Ser
                20                25                30
Thr Gln Asp Ile Leu Ser Ala Ile His Asp Val Ala Ala Pro Leu Ala
35                40                45
Leu Pro Ile Phe Val Val Gly Ala Thr Ala Arg Asp Ile Leu Leu Thr
50                55                60
His Val Phe Gly Ile Glu Thr Gly Arg Ala Thr Leu Asp Val Asp Phe

```

65					70					75					80
Ala	Val	Ala	Val	Glu	His	Trp	Pro	Gln	Phe	Glu	Asn	Ile	Lys	Gln	His
				85					90					95	
Leu	Leu	Ala	Asn	Asp	His	Phe	Asp	Ser	Ala	Ala	Ser	Ile	Thr	His	Arg
			100					105					110		
Leu	Leu	Tyr	Arg	Thr	Ser	Asp	Asn	Thr	Ile	Ala	Arg	Pro	Ile	Asp	Leu
		115					120					125			
Ile	Pro	Phe	Gly	Gly	Ile	Glu	Gln	Pro	Pro	Ala	Thr	Ile	Lys	Trp	Pro
	130					135					140				
Pro	Asp	Met	Ala	Val	Met	Met	Asn	Val	Ala	Gly	Tyr	Ala	Asp	Ala	Trp
145					150					155				160	
Arg	Ala	Ala	Val	Glu	Val	Glu	Phe	Val	Pro	Gly	Arg	Ser	Ile	Arg	
			165						170					175	

&lt;210&gt; 737

&lt;211&gt; 497

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 737

```

ntgcgcctgg ccaattccgg cgccatcctc gggcacgata tggggaaaac ctccatgggtg
60
cgcgccggca tcgttgggta cggatacgat cccaaccctc acgccgaccg tgccgaccta
120
caccctgccc tgtcctggat cagccacgtc accttcgtta aaactgtcag tgtgggggat
180
accatcggct acggcagaac atggacagcc agcgaaacga caaaaatcgc caccgtccca
240
gtcggttacg ccgacggact gtcccagagga ctgtcaaata aaggacacgt tctcattaga
300
gggtccgttc atcccatcgt cggtcggata tgcattggacc aattcatggt cgatcttggc
360
cccgattcga acgtcacggt gggagatgag gtggtgctca ttggaacca ggaggacgaa
420
actctgaccg ctgatgacat ggccgaactc ctcggaacca ttagctacga gatcacttgc
480
gccatttcca aacgcgt
497

```

&lt;210&gt; 738

&lt;211&gt; 165

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 738

Xaa	Arg	Leu	Ala	Asn	Ser	Gly	Ala	Ile	Leu	Gly	His	Asp	Leu	Gly	Lys
1				5				10					15		
Thr	Ser	Met	Val	Arg	Ala	Gly	Ile	Val	Gly	Tyr	Gly	Tyr	Asp	Pro	Asn
			20					25					30		
Pro	His	Ala	Asp	Arg	Ala	Asp	Leu	His	Pro	Ala	Leu	Ser	Trp	Ile	Ser
		35					40					45			
His	Val	Thr	Phe	Val	Lys	Thr	Val	Ser	Val	Gly	Asp	Thr	Ile	Gly	Tyr
	50					55					60				
Gly	Arg	Thr	Trp	Thr	Ala	Ser	Glu	Thr	Thr	Lys	Ile	Ala	Thr	Val	Pro

```

65              70              75              80
Val Gly Tyr Ala Asp Gly Leu Ser Arg Gly Leu Ser Asn Lys Gly His
                        85              90              95
Val Leu Ile Arg Gly Ser Val His Pro Ile Val Gly Arg Ile Cys Met
                        100              105              110
Asp Gln Phe Met Val Asp Leu Gly Pro Asp Ser Asn Val Thr Val Gly
                        115              120              125
Asp Glu Val Val Leu Ile Gly Thr Gln Glu Asp Glu Thr Leu Thr Ala
                        130              135              140
Asp Asp Met Ala Glu Leu Leu Gly Thr Ile Ser Tyr Glu Ile Thr Cys
145              150              155              160
Ala Ile Ser Lys Arg
                        165

```

<210> 739  
 <211> 438  
 <212> DNA  
 <213> Homo sapiens

```

<400> 739
cggctgctggg aagagcgggc gcacgcgctc aagaccaagg aaaagctggc acagaccgcc
60
acggcctcat cagcagctgt gggctcaggc cccctccccg aggcggagca ggcgtggccg
120
cagagcagcg gggaggagga gctgcagctc cagctggccc tggccatgag caaggaggag
180
gccgaccagc cccgctcctg cggccccgag gacgacgccc agctccagct ggcccttagt
240
ttgagccgag aagagcatga taaggaggag cggatccgct gcggggatga cctgcggctg
300
cagatggcaa tcgaggagag caagagggag actgggggca aggaggagtc gtcctcatg
360
gaccttgctg acgtcttcac gccccagct cctgccccga ccacagaccc ctgggggggc
420
ccagcaccca tggctgct
438

```

<210> 740  
 <211> 146  
 <212> PRT  
 <213> Homo sapiens

```

<400> 740
Arg Leu Arg Glu Glu Arg Ala His Ala Leu Lys Thr Lys Glu Lys Leu
1              5              10              15
Ala Gln Thr Ala Thr Ala Ser Ser Ala Ala Val Gly Ser Gly Pro Pro
20              25              30
Pro Glu Ala Glu Gln Ala Trp Pro Gln Ser Ser Gly Glu Glu Glu Leu
35              40              45
Gln Leu Gln Leu Ala Leu Ala Met Ser Lys Glu Glu Ala Asp Gln Pro
50              55              60
Pro Ser Cys Gly Pro Glu Asp Asp Ala Gln Leu Gln Leu Ala Leu Ser
65              70              75              80
Leu Ser Arg Glu Glu His Asp Lys Glu Glu Arg Ile Arg Arg Gly Asp

```

				85						90					95				
Asp	Leu	Arg	Leu	Gln	Met	Ala	Ile	Glu	Glu	Ser	Lys	Arg	Glu	Thr	Gly				
			100					105					110						
Gly	Lys	Glu	Glu	Ser	Ser	Leu	Met	Asp	Leu	Ala	Asp	Val	Phe	Thr	Pro				
		115				120					125								
Pro	Ala	Pro	Ala	Pro	Thr	Thr	Asp	Pro	Trp	Gly	Gly	Pro	Ala	Pro	Met				
	130					135					140								
Ala	Ala																		
145																			

<210> 741  
 <211> 726  
 <212> DNA  
 <213> Homo sapiens

<400> 741  
 gcctctctcc gaccgcgttg ttgtaaggat gtcgcgacgg tgcgcaaaaa tgaatatgtg  
 60  
 aatttgccgg tcatctgcct cgtcgggccc actgctagcg gaaaatcagg gctagcgggtg  
 120  
 cgagtgtgcc gccgcttgta tgtcgatgag caccgcgccg aaattattaa tactgactcg  
 180  
 atggtggtgt atcgcgggat ggacattggc actgccaccc ctacactgcg cgagcagcgc  
 240  
 acggtagtgc atcacctggg gtcgattctt gatgtgactg tgccctcctc gctagtactg  
 300  
 atgcagacgc tggcccgtga tgcgctcgag gattgtctgt cgcgtggtgt catccctgtc  
 360  
 ttggtgggag ggtctgcgct gtacaccaag gccatcattg acgaaatgtc catcccgcca  
 420  
 actgatccgg aagtgagggc tcggtggcag gagaagctag atgccgaggg gccgcgagtt  
 480  
 ctgcatgacg agcttgcccg tcgcatccc aaggcggctg agtcaatctt gcccggaac  
 540  
 ggcaggcgaa tcgtttcgtg ccctcgaagt ttattgacct tgacaggggtc ctttactgcc  
 600  
 accgatcccc gacgggaccc tccactggcc aagacggtgc aaatgggctt agaactgtcg  
 660  
 cgcaaagaca tagaccagcg tattgccgat cgggttgacc agatgtgggc atacggtttc  
 720  
 gtcgac  
 726

<210> 742  
 <211> 242  
 <212> PRT  
 <213> Homo sapiens

<400> 742  
 Ala Ser Leu Arg Pro Arg Cys Cys Lys Asp Val Ala Thr Val Arg Lys  
 1 5 10 15  
 Asn Glu Tyr Val Asn Leu Pro Val Ile Cys Leu Val Gly Pro Thr Ala  
 20 25 30  
 Ser Gly Lys Ser Gly Leu Ala Val Arg Val Cys Arg Arg Leu Tyr Val

```

      35      40      45
Asp Glu His Pro Ala Glu Ile Ile Asn Thr Asp Ser Met Val Val Tyr
      50      55      60
Arg Gly Met Asp Ile Gly Thr Ala Thr Pro Thr Leu Arg Glu Gln Arg
      65      70      75      80
Thr Val Val His His Leu Val Ser Ile Leu Asp Val Thr Val Pro Ser
      85      90      95
Ser Leu Val Leu Met Gln Thr Leu Ala Arg Asp Ala Val Glu Asp Cys
      100      105      110
Leu Ser Arg Gly Val Ile Pro Val Leu Val Gly Gly Ser Ala Leu Tyr
      115      120      125
Thr Lys Ala Ile Ile Asp Glu Met Ser Ile Pro Pro Thr Asp Pro Glu
      130      135      140
Val Arg Ala Arg Trp Gln Glu Lys Leu Asp Ala Glu Gly Pro Arg Val
      145      150      155      160
Leu His Asp Glu Leu Ala Arg Arg Asp Pro Lys Ala Ala Glu Ser Ile
      165      170      175
Leu Pro Gly Asn Gly Arg Arg Ile Val Ser Cys Pro Arg Ser Leu Leu
      180      185      190
Thr Leu Thr Gly Ser Phe Thr Ala Thr Asp Pro Arg Arg Asp Pro Pro
      195      200      205
Leu Ala Lys Thr Val Gln Met Gly Leu Glu Leu Ser Arg Lys Asp Ile
      210      215      220
Asp Gln Arg Ile Ala Asp Arg Val Asp Gln Met Trp Ala Tyr Gly Phe
      225      230      235      240
Val Asp

```

<210> 743  
 <211> 430  
 <212> DNA  
 <213> Homo sapiens

```

<400> 743
naaaaaagtg atggttttcgg atctgtggcc agtcgtcttg caagaaatca ttatgacgtg
60
gatgagggca acagcancat tcatgttaat caagacattg cgcgacagaac agggacggga
120
aagctattgg tacgagtgtg cccggcgcac gtgtactcag aggagcccga tggcactatt
180
tccgtggagt acgcagcgtg tctggagtgt ggcacttgtc tggcggttgc tgcgccaggg
240
tcgcttgaat ggcactatcc cgcaggtgca atgggtattt cgttcagaga aggatgaagt
300
ccttgtgggc gactgtaaag cgacatggcc gtcgctcggg aggaggaatt gtggtgtccg
360
caccaaatag tgctcaggat gaagttcgtc atggaaatcc ggctccaacc gtttcgggag
420
ctggtcgcga
430

```

<210> 744  
 <211> 98  
 <212> PRT

<213> Homo sapiens

<400> 744

```

Xaa Lys Ser Asp Gly Phe Gly Ser Val Ala Ser Arg Leu Ala Arg Asn
 1           5           10           15
His Tyr Asp Val Asp Glu Gly Asn Ser Xaa Ile His Val Asn Gln Asp
          20           25           30
Ile Ala Arg Arg Thr Gly Thr Gly Lys Leu Leu Val Arg Val Cys Pro
          35           40           45
Ala His Val Tyr Ser Glu Glu Pro Asp Gly Thr Ile Ser Val Glu Tyr
          50           55           60
Ala Ala Cys Leu Glu Cys Gly Thr Cys Leu Ala Val Ala Ala Pro Gly
65           70           75           80
Ser Leu Glu Trp His Tyr Pro Ala Gly Ala Met Gly Ile Ser Phe Arg
          85           90           95
Glu Gly

```

<210> 745

<211> 362

<212> DNA

<213> Homo sapiens

<400> 745

```

cggccgattg aagcgctcgt gcggtttgag tcggtgatgg atgcggtgga cggtgcttcg
60
gcgtcgtggt ggcgcattggc gcggtatttc atcgccgagc ttgaacgcag cagcgagttg
120
tatgagcagg cggcgtttac ccgcgatctg gaaagctcgc tgatcaaggg cctgatcctc
180
gcccagccga acaactactc cgaagaactg cgcgacgtac tcggcgtgaa gctgccgcat
240
tacttgattc gcgcgcggca gtacatccac gacaacgccc gcgaagccgt gcatctggaa
300
gacctggaaa ccgctgccgg ggtatcgcgg ttcaagttgt tcgatgcgtt tcgcaaatac
360
tt
362

```

<210> 746

<211> 108

<212> PRT

<213> Homo sapiens

<400> 746

```

Met Asp Ala Val Asp Gly Ala Ser Ala Ser Trp Trp Arg Met Ala Arg
 1           5           10           15
Tyr Phe Ile Ala Glu Leu Glu Arg Ser Ser Glu Leu Tyr Glu Gln Ala
          20           25           30
Ala Phe Thr Arg Asp Leu Glu Ser Ser Leu Ile Lys Gly Leu Ile Leu
          35           40           45
Ala Gln Pro Asn Asn Tyr Ser Glu Glu Leu Arg Asp Val Leu Gly Val
          50           55           60
Lys Leu Pro His Tyr Leu Ile Arg Ala Arg Gln Tyr Ile His Asp Asn

```



65		70		75	80
Ala	Arg	Glu	Ala	Val	His
				Leu	Glu
				Asp	Leu
				Glu	Thr
				Ala	Ala
				Gly	Val
					95
		85		90	
Ser	Arg	Phe	Lys	Leu	Phe
				Asp	Ala
				Phe	Arg
				Lys	Tyr
					105
					100

<210> 747  
 <211> 416  
 <212> DNA  
 <213> Homo sapiens

<400> 747  
 nacgcgttga tcgccgccga ccgtttcatc ccgcaatcac ccgacatggc ggcctatttt  
 60  
 ctgaatgccg atggcacgcc taaagccacc ggcacgctgc tcaagaaccc agcgctggcc  
 120  
 gccgtgttca aacgtatcgc caaggaagga ccggacgcgc tgtaccacgg gccgattgcc  
 180  
 gacgagatcg cgcgcaaggt tcagggcaac cgcaatgcgg gcagcctgtc gcaagcggac  
 240  
 ctcaaggctt acaccgcca ggaacgcacg ccgctgtgca ccgactacaa gcaatatcag  
 300  
 gtgtgcggca tgccaccgcc gtcgtcaggg gggattgcgg tggcgcagat cctcggcacg  
 360  
 ctgcaggccg tggaagcccg cgacccacgc ctggccatcg ccccatgaa accggt  
 416

<210> 748  
 <211> 138  
 <212> PRT  
 <213> Homo sapiens

<400> 748  
 Xaa Ala Leu Ile Ala Ala Asp Arg Phe Ile Pro Gln Ser Pro Asp Met  
 1 5 10 15  
 Ala Ala Tyr Phe Leu Asn Ala Asp Gly Thr Pro Lys Ala Thr Gly Thr  
 20 25 30  
 Leu Leu Lys Asn Pro Ala Leu Ala Ala Val Phe Lys Arg Ile Ala Lys  
 35 40 45  
 Glu Gly Pro Asp Ala Leu Tyr His Gly Pro Ile Ala Asp Glu Ile Ala  
 50 55 60  
 Arg Lys Val Gln Gly Asn Arg Asn Ala Gly Ser Leu Ser Gln Ala Asp  
 65 70 75 80  
 Leu Lys Ala Tyr Thr Ala Lys Glu Arg Thr Pro Leu Cys Thr Asp Tyr  
 85 90 95  
 Lys Gln Tyr Gln Val Cys Gly Met Pro Pro Pro Ser Ser Gly Gly Ile  
 100 105 110  
 Ala Val Ala Gln Ile Leu Gly Thr Leu Gln Ala Val Glu Ala Arg Asp  
 115 120 125  
 Pro Arg Leu Ala Ile Ala Pro Met Lys Pro  
 130 135

<210> 749  
 <211> 1211

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 749

nagtcctaga cgccagaccc gctcagaccc tcctgccagg tgacagccgc caagatgggg  
60  
tcttggggccc tgctgtggcc tcccctgctg ttcaccgggc tgctcgtccg acccccgggg  
120  
accatggccc agggccagta ctgctctgtg aacaaggaca tctttgaagt agaggagaac  
180  
acaaatgtca ccgagccgct ggtggacatc cacgtcccgg agggccagga ggtgaccctc  
240  
ggagccttgt ccaccccctt tgcatttcgg atccagggaa accagctgtt tctcaacgtg  
300  
actcctgatt acgaggagaa gtcactgctt gaggctcagc tgctgtgtca gagcggaggc  
360  
acattggtga ccagctaag ggtgttcgtg tcagtgtctg acgtcaatga caatgcccc  
420  
gaattcccct ttaagaccaa ggagataagg gtggaggagg acacgaaagt gaactccacc  
480  
gtcatccccg agacgcaact gcaggctgag gaccgcgaca aggacgacat tctgttctac  
540  
accctccagg aaatgacagc aggtgccagt gactacttct ccctgggtgag tgtaaaccgt  
600  
cccgccctga ggctggaccg gcccctggac ttctacgagc ggccgaacat gaccttcttg  
660  
ctgctggtgc gggacactcc gggggagaat gtggaacca gccacactgc caccgccaca  
720  
ctagtgtga acgtggtgcc cgccgacctg cgcccccggt ggttcctgcc ctgcaccttc  
780  
tcagatggct acgtctgcat tcaagctcag taccacgggg ctgtccccac ggggcacata  
840  
ctgccatctc ccctcgtcct gcgtcccga cccatctacg ctgaggacgg agaccgcggc  
900  
atcaaccagc ccatcatcta cagcatcttt aggggaaacg tgaatggtac attcatcatc  
960  
caccagact cgggcaacct caccgtggcc aggagtgtcc ccagccccat gaccttcctt  
1020  
ctgctggtga agggccaaca ggccgacctt gcccgctact cagtgacca ggtcaccgtg  
1080  
gagggtgtg gctgcggccg ggagcccgcc ccgcttcccc cagagcctgt atcgtggcac  
1140  
cgtggcgct ggcgctggag cgggcgttgt ggtcaaggat gcagctgccc cttttcagcc  
1200  
tctgaggatc c  
1211

&lt;210&gt; 750

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 750

Met Gly Ser Trp Ala Leu Leu Trp Pro Pro Leu Leu Phe Thr Gly Leu

1 5 10 15  
 Leu Val Arg Pro Pro Gly Thr Met Ala Gln Ala Gln Tyr Cys Ser Val  
 20 25 30  
 Asn Lys Asp Ile Phe Glu Val Glu Glu Asn Thr Asn Val Thr Glu Pro  
 35 40 45  
 Leu Val Asp Ile His Val Pro Glu Gly Gln Glu Val Thr Leu Gly Ala  
 50 55 60  
 Leu Ser Thr Pro Phe Ala Phe Arg Ile Gln Gly Asn Gln Leu Phe Leu  
 65 70 75 80  
 Asn Val Thr Pro Asp Tyr Glu Glu Lys Ser Leu Leu Glu Ala Gln Leu  
 85 90 95  
 Leu Cys Gln Ser Gly Gly Thr Leu Val Thr Gln Leu Arg Val Phe Val  
 100 105 110  
 Ser Val Leu Asp Val Asn Asp Asn Ala Pro Glu Phe Pro Phe Lys Thr  
 115 120 125  
 Lys Glu Ile Arg Val Glu Glu Asp Thr Lys Val Asn Ser Thr Val Ile  
 130 135 140  
 Pro Glu Thr Gln Leu Gln Ala Glu Asp Arg Asp Lys Asp Asp Ile Leu  
 145 150 155 160  
 Phe Tyr Thr Leu Gln Glu Met Thr Ala Gly Ala Ser Asp Tyr Phe Ser  
 165 170 175  
 Leu Val Ser Val Asn Arg Pro Ala Leu Arg Leu Asp Arg Pro Leu Asp  
 180 185 190  
 Phe Tyr Glu Arg Pro Asn Met Thr Phe Trp Leu Leu Val Arg Asp Thr  
 195 200 205  
 Pro Gly Glu Asn Val Glu Pro Ser His Thr Ala Thr Ala Thr Leu Val  
 210 215 220  
 Leu Asn Val Val Pro Ala Asp Leu Arg Pro Pro Trp Phe Leu Pro Cys  
 225 230 235 240  
 Thr Phe Ser Asp Gly Tyr Val Cys Ile Gln Ala Gln Tyr His Gly Ala  
 245 250 255  
 Val Pro Thr Gly His Ile Leu Pro Ser Pro Leu Val Leu Arg Pro Gly  
 260 265 270  
 Pro Ile Tyr Ala Glu Asp Gly Asp Arg Gly Ile Asn Gln Pro Ile Ile  
 275 280 285  
 Tyr Ser Ile Phe Arg Gly Asn Val Asn Gly Thr Phe Ile Ile His Pro  
 290 295 300  
 Asp Ser Gly Asn Leu Thr Val Ala Arg Ser Val Pro Ser Pro Met Thr  
 305 310 315 320  
 Phe Leu Leu Leu Val Lys Gly Gln Gln Ala Asp Leu Ala Arg Tyr Ser  
 325 330 335  
 Val Thr Gln Val Thr Val Glu Gly Cys Gly Cys Gly Arg Glu Pro Ala  
 340 345 350  
 Pro Leu Pro Pro Glu Pro Val Ser Trp His Arg Gly Ala Trp Arg Trp  
 355 360 365  
 Ser Gly Arg Cys Gly Gln Gly Cys Ser Cys Pro Phe Ser Ala Ser Glu  
 370 375 380  
 Asp  
 385

&lt;210&gt; 751

&lt;211&gt; 345

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 751

cgcgctcgcg tcatcgtaa cgacatgagc gaggtcaaca tcgacgcggc gctgggtggcg  
60  
gcaggcggcg ggctgtcgcg caccgaggag aagctcgtcg agatgtcgaa cggctgcatc  
120  
tgctgcacgc tgcgcgacga cctgatgcag gaagtggcga gactggcggg cgaaggccgc  
180  
ttcgatgcgc tggatcatga gagcaccggc gtgtccgagc cgatgccggg cgcgcgccacg  
240  
ttcgatttcc gtgaccagga cggcgtctcg ctgcgccgacg tcgcgcggct ggataccatg  
300  
gtcacgctcg tcgacgcgcg gtccttcctg cgcgactacg gctcg  
345

&lt;210&gt; 752

&lt;211&gt; 115

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 752

Arg	Val	Ala	Val	Ile	Val	Asn	Asp	Met	Ser	Glu	Val	Asn	Ile	Asp	Ala
1				5					10					15	
Ala	Leu	Val	Ala	Ala	Gly	Gly	Gly	Leu	Ser	Arg	Thr	Glu	Glu	Lys	Leu
			20					25						30	
Val	Glu	Met	Ser	Asn	Gly	Cys	Ile	Cys	Cys	Thr	Leu	Arg	Asp	Asp	Leu
		35					40					45			
Met	Gln	Glu	Val	Ala	Arg	Leu	Ala	Gly	Glu	Gly	Arg	Phe	Asp	Ala	Leu
	50					55					60				
Val	Ile	Glu	Ser	Thr	Gly	Val	Ser	Glu	Pro	Met	Pro	Val	Ala	Ala	Thr
65					70					75					80
Phe	Asp	Phe	Arg	Asp	Gln	Asp	Gly	Val	Ser	Leu	Ala	Asp	Val	Ala	Arg
			85						90				95		
Leu	Asp	Thr	Met	Val	Thr	Val	Val	Asp	Ala	Ala	Ser	Phe	Leu	Arg	Asp
			100					105					110		
Tyr	Gly	Ser													
															115

&lt;210&gt; 753

&lt;211&gt; 352

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 753

gcgcgccagt acgccaagac cgtccgcaag gaccgcaagg gcgaacggcg gcgtcggggc  
60  
gcgtcggact agtccacgat gcatccgaac cgcgccttcc gctttgccga tgatgtctcg  
120  
atgctcgatt tcgcggccaa gcgagccttt gcgcacatct tcgtgagcac gcccgagggg  
180  
cctatggtag cgcgatcccc ggtaacgccc ttcgacggag ccttccgctt ccatgtcgcg  
240  
cgcggaatc ggatcgcgcg gcacctggat ggcgcgacgc tgctgctcag catcagcgcg  
300

accgacggct atatcagccc gagctggtac gccgacccgc agggaccaca gt  
352

<210> 754  
<211> 91  
<212> PRT  
<213> Homo sapiens

<400> 754  
Met His Pro Asn Arg Ala Phe Arg Phe Ala Asp Asp Val Ser Met Leu  
1 5 10 15  
Asp Phe Ala Ala Lys Arg Ala Phe Ala His Ile Phe Val Ser Thr Pro  
20 25 30  
Glu Gly Pro Met Val Ala His Ala Pro Val Thr Pro Phe Asp Gly Ala  
35 40 45  
Phe Arg Phe His Val Ala Arg Gly Asn Arg Ile Ala Arg His Leu Asp  
50 55 60  
Gly Ala Thr Leu Leu Leu Ser Ile Ser Ala Thr Asp Gly Tyr Ile Ser  
65 70 75 80  
Pro Ser Trp Tyr Ala Asp Pro Gln Gly Pro Gln  
85 90

<210> 755  
<211> 301  
<212> DNA  
<213> Homo sapiens

<400> 755  
tgggatgcag ggtctttctt ctccaaggat ttcattcctg gagggagaaa agggccccag  
60  
ctgtctgcca tcaaaccggg ttgccgggct ggagctcctc ccaggcccgt gtgaggaaga  
120  
gcaaaggccg gcaggggctc gatgggacca gtcgctcgct caggcccagg aaaaccacac  
180  
agctgggggc tgtcaggatt ggaccagggt caggccggcc aggcgatggc gggaaaagca  
240  
ggcccactct gcagacctca atgtctcagg tgcactgcag ggcaaccccg cctaccccgg  
300  
g  
301

<210> 756  
<211> 99  
<212> PRT  
<213> Homo sapiens

<400> 756  
Met Gln Gly Leu Ser Ser Pro Arg Ile Ser Phe Leu Glu Gly Glu Lys  
1 5 10 15  
Gly Pro Ser Cys Leu Pro Ser Asn Arg Val Ala Gly Leu Glu Leu Leu  
20 25 30  
Pro Gly Pro Cys Glu Glu Glu Gln Arg Pro Ala Gly Ala Arg Trp Asp  
35 40 45  
Gln Ser Leu Ala Gln Ala Gln Glu Asn His Thr Ala Gly Gly Cys Gln



gtgcacaccg gcaagctggt gtggaactgg gacagcggca acccggaaga cactacgccg  
 60  
 attgccgagg gcaagaccta caccgcgaac tcgccgaaca tgtggtccat gttcgccgtc  
 120  
 gacgaaaaac tcggcatgct ctacctgccg atgggcaacc agaccccgga ccagttcggg  
 180  
 ggctaccgca cgcctgcgtc ggaactgcac gctgccggcc tgacagcgtt ggatatcgac  
 240  
 actggtaaag tgcgctggca ctaccagttc acccaccatg acctgtggga catggacgtg  
 300  
 ggccggccagc cgagcctgat cgacatcaag accgccgccg gcgtgaaaca agccgtgatg  
 360  
 gcctcgacca agcaaggcag catctacgcg t  
 391

<210> 760  
 <211> 130  
 <212> PRT  
 <213> Homo sapiens

<400> 760  
 Val His Thr Gly Lys Leu Val Trp Asn Trp Asp Ser Gly Asn Pro Asp  
 1 5 10 15  
 Asp Thr Thr Pro Ile Ala Glu Gly Lys Thr Tyr Thr Arg Asn Ser Pro  
 20 25 30  
 Asn Met Trp Ser Met Phe Ala Val Asp Glu Lys Leu Gly Met Leu Tyr  
 35 40 45  
 Leu Pro Met Gly Asn Gln Thr Pro Asp Gln Phe Gly Gly Tyr Arg Thr  
 50 55 60  
 Pro Ala Ser Glu Leu His Ala Ala Gly Leu Thr Ala Leu Asp Ile Asp  
 65 70 75 80  
 Thr Gly Lys Val Arg Trp His Tyr Gln Phe Thr His His Asp Leu Trp  
 85 90 95  
 Asp Met Asp Val Gly Gly Gln Pro Ser Leu Ile Asp Ile Lys Thr Ala  
 100 105 110  
 Ala Gly Val Lys Gln Ala Val Met Ala Ser Thr Lys Gln Gly Ser Ile  
 115 120 125  
 Tyr Ala  
 130

<210> 761  
 <211> 324  
 <212> DNA  
 <213> Homo sapiens

<400> 761  
 cctaggtagg cccaaagggg cctaactttc ttgctgccct ggtggagcaa gaaatatctt  
 60  
 ctaggagagg ccaatccttc cctgccccac agtccttct ctgcaaagct cagggggcaa  
 120  
 tcaggtacct cctgccaag agggcccat ggttcctcgc ctaaggaagg cagggcgggg  
 180  
 cattgggagc cgttgacagc tgggctcagc tggggggagg ggtcagtttg ggagcaggtg  
 240

cagatttcag ggaggggggg gcctaaaggg aagtagggat cttggtaggc tgcaaaattt  
 300  
 tcctcccat ccccatcca caga  
 324

<210> 762  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 762  
 Met Gly Asp Gly Glu Glu Asn Phe Ala Ala Tyr Gln Asp Pro Tyr Phe  
 1 5 10 15  
 Pro Leu Gly Pro Pro Leu Pro Glu Ile Cys Thr Cys Ser Gln Thr Asp  
 20 25 30  
 Pro Ser Pro Gln Leu Ser Pro Ala Val Asn Gly Ser Gln Cys Pro Ala  
 35 40 45  
 Leu Pro Ser Leu Gly Glu Glu Pro Trp Gly Pro Leu Gly Gln Glu Val  
 50 55 60  
 Pro Asp Cys Pro Leu Ser Phe Ala Glu Lys Glu Leu Trp Gly Arg Glu  
 65 70 75 80  
 Gly Leu Ala Ser Pro Arg Arg Tyr Phe Leu Leu His Gln Gly Ser Lys  
 85 90 95  
 Lys Val Arg Pro Leu Trp Ala Tyr Leu  
 100 105

<210> 763  
 <211> 301  
 <212> DNA  
 <213> Homo sapiens

<400> 763  
 acgcgttatg ggcggcccgg atgggcatg cgctatccca cacctcgatg atggcggaca  
 60  
 tcctcggcgg tgtgctggaa gtggcgccca atatcgcatg tactgcgggc gcgaccgctg  
 120  
 ccgcggtggc cgccaccggc tttaccgagg ccaccggcgg cctcggctgc ttcctgctgg  
 180  
 gcgctgcctt gggcaccatt gccggcctgg ccatgagcaa cattggcgcg gacacagggc  
 240  
 tgaccaagat atgcaatgcc ttaacaacg cttatttgc gccaccgtg catgcgaaca  
 300  
 t  
 301

<210> 764  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 764  
 Met Phe Ala Cys Thr Val Gly Ala Asn Lys Ala Leu Leu Lys Ala Leu  
 1 5 10 15  
 His Ile Leu Val Ser Pro Val Ser Ala Pro Met Leu Leu Met Ala Arg



20 25 30  
 Pro Ala Met Val Pro Lys Ala Ala Pro Ser Arg Lys Gln Pro Arg Pro  
 35 40 45  
 Pro Val Ala Ser Val Lys Pro Val Ala Ala Thr Ala Ala Val Ala  
 50 55 60  
 Pro Ala Val Ile Ala Ile Leu Ala Ala Thr Ser Ser Thr Pro Pro Arg  
 65 70 75 80  
 Met Ser Ala Ile Ile Glu Val Trp Asp Ser Ala Ser Pro Ile Arg Ala  
 85 90 95  
 Ala His Asn Ala  
 100

<210> 765  
 <211> 831  
 <212> DNA  
 <213> Homo sapiens

<400> 765  
 ngcacactcc agcctctggt cttctctctcc ttgtgccttt gcccttacca cggttcctca  
 60  
 taacattggt gttcctgtat ttaaggccct ataaacaggg agatgcgcca cctcatcagt  
 120  
 agcctccaga atcacaatca ccagctgaaa ggggaggtcc tgagatataa gcggaaattg  
 180  
 agagaagccc agtctgacct gaacaagaca cgcctgcgta gtggtagtgc cctcctgcag  
 240  
 tcccagtcta gtactgagga cccgaaggat gagcctgcgg agctaaaacc agattctggg  
 300  
 gacttatcct ccagtcctc agcttcaaag gcattctcagg aggatgccaa tgaaatcaag  
 360  
 tctaaacggg atgaagaaga acgagaacga gaaaggaggg agaaggagag ggaacgagaa  
 420  
 agagaacggg agaaggagaa ggagagagaa cgagagaagc agaagctaaa agagtcagaa  
 480  
 aaagagagag attctgctaa ggataaagag aaaggcaaac atgatgatgg acggaaaaag  
 540  
 gaagcagaaa ttatcaaaca attgaagatt gaactcaaga aggcacagga gagccaaaag  
 600  
 gagatgaaac tattgctgga tatgtaccgt tctgccccaa aggaacagag agacaaagtc  
 660  
 cagctgatgg cagctgagaa gaagtctaag gcagagttgg aagatctaag gcaaagactc  
 720  
 aaggatctgg aagataaaga gaagaaagag aacaagaaaa tggctgatga ggatgccttg  
 780  
 aggaagatcc gggcagtgga ggagcagata gaatacctac agaagaagct a  
 831

<210> 766  
 <211> 243  
 <212> PRT  
 <213> Homo sapiens

<400> 766  
 Met Arg His Leu Ile Ser Ser Leu Gln Asn His Asn His Gln Leu Lys

```
<400> 767
gctagctcgc tcgcactcat tctcgggagg cttccccgcg ccggccgcgt cccgcccgcg
60
ccccggcacc agaagttcct ctgcgcgtcc gacggcgaca tgggcgtccc cacggccccg
120
gaggccggca gctggcgctg gggatccctg ctcttcgctc tcttcctggc tgcgtcccta
180
ggtcgcggtg cagccttcaa ggtcgccacg ccgtattccc tgtatgtctg tcccgagggg
240
cagaacgtca ccctcacctg caggctcttg ggccctgtgg acaaagggca cgatgtgacc
300
ttctacaaga cgtggtaccg cagctcgagg ggcgaggtgc agacctgctc agagcgccgg
360
cccatccgca acctcacgtt ccaggacctt cacctgcacc atggaggcca ccaggctgcc
420
aacaccagcc a
431
```

<210> 768  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 768  
 Met Gly Val Pro Thr Ala Pro Glu Ala Gly Ser Trp Arg Trp Gly Ser  
 1 5 10 15  
 Leu Leu Phe Ala Leu Phe Leu Ala Ala Ser Leu Gly Pro Val Ala Ala  
 20 25 30  
 Phe Lys Val Ala Thr Pro Tyr Ser Leu Tyr Val Cys Pro Glu Gly Gln  
 35 40 45  
 Asn Val Thr Leu Thr Cys Arg Leu Leu Gly Pro Val Asp Lys Gly His  
 50 55 60  
 Asp Val Thr Phe Tyr Lys Thr Trp Tyr Arg Ser Ser Arg Gly Glu Val  
 65 70 75 80  
 Gln Thr Cys Ser Glu Arg Arg Pro Ile Arg Asn Leu Thr Phe Gln Asp  
 85 90 95  
 Leu His Leu His His Gly Gly His Gln Ala Ala Asn Thr Ser  
 100 105 110

<210> 769  
 <211> 422  
 <212> DNA  
 <213> Homo sapiens

<400> 769  
 tgtacacctc gtaatacatg atcgcgatac cgcccgcgat gaccctaagc aactcattct  
 60  
 cgacttcgaa ctccatcaag tgatttttgc ggtcgacgaa tctggtttcc gtatgaaaga  
 120  
 acggtatggt ttgtatgtcg cggccctgcc actcaaacct caccgtgtca cccacctcaa  
 180  
 aaaaatcccc ggtcggccca caaataaatc aattgcgccg ctctccgag ttcttccatg  
 240  
 tcaacgatct cccctggctg ctcaagccaa ggccctcgcg gccgtgggac tccaagggtg  
 300  
 acgttgaccc gactgatttc ggaccagttg gcgtcggtat tgggggacagg gtagttaccg  
 360  
 cccatgtcga tgatctacat cgccaccggc agcgtgtctt cgtagtcgtc atgcctgac  
 420  
 an  
 422

<210> 770  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 770  
 Met Phe Cys Met Ser Arg Pro Cys His Ser Asn Leu Thr Val Ser Pro  
 1 5 10 15  
 Thr Ser Lys Lys Ser Arg Val Gly Pro Gln Ile Asn Gln Leu Arg Arg

```

          20          25          30
Ser Ser Glu Phe Phe His Val Asn Asp Leu Pro Trp Leu Leu Lys Pro
          35          40          45
Arg Pro Ser Arg Pro Trp Asp Ser Lys Val Asp Val Asp Pro Thr Asp
          50          55          60
Phe Gly Pro Val Gly Val Gly Ile Gly Gly Arg Val Val Thr Ala His
65          70          75          80
Val Asp Asp Leu His Arg His Arg Gln Arg Val Phe Val Val Val Met
          85          90          95
Pro Asp Xaa

```

<210> 771  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

<400> 771  
 gcctacgcgc aattcctcgc gggatatggcg tttaacaatg cgtctctcgg gtatgtgcat  
 60  
 gcaatggcgc atcagctggg cggtttttac gatctgccgc acggcgtgtg caatgcgata  
 120  
 ctgttgccac acgtgcagac gtttaactgc aaagtggcgg cctcgcgcct gcgtgattgc  
 180  
 gccagggcca tgggtgtcga tgtcagtcaa atgacagcag aacagggcgc acaggcgtgt  
 240  
 atcgcagaga ttcgctctct ggcacgtcag gtgaatatcc cggtagggatt gcgtgacctc  
 300  
 aacgtgaagg aagcggactt cccgattctg gcgaccaacg cgctaaaaga ccctgtgggt  
 360  
 ttgattaat  
 369

<210> 772  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

<400> 772  
 Ala Tyr Ala Gln Phe Leu Ala Gly Met Ala Phe Asn Asn Ala Ser Leu  
 1 5 10 15  
 Gly Tyr Val His Ala Met Ala His Gln Leu Gly Gly Phe Tyr Asp Leu  
 20 25 30  
 Pro His Gly Val Cys Asn Ala Ile Leu Leu Pro His Val Gln Thr Phe  
 35 40 45  
 Asn Cys Lys Val Ala Ala Ser Arg Leu Arg Asp Cys Ala Gln Ala Met  
 50 55 60  
 Gly Val Asp Val Ser Gln Met Thr Ala Glu Gln Gly Ala Gln Ala Cys  
 65 70 75 80  
 Ile Ala Glu Ile Arg Ser Leu Ala Arg Gln Val Asn Ile Pro Val Gly  
 85 90 95  
 Leu Arg Asp Leu Asn Val Lys Glu Ala Asp Phe Pro Ile Leu Ala Thr  
 100 105 110  
 Asn Ala Leu Lys Asp Pro Val Gly Leu Ile Asn

115

120

<210> 773  
 <211> 309  
 <212> DNA  
 <213> Homo sapiens

<400> 773  
 ccgcccgttgc cggcgggtgga ttttctggta ggcttgaatc agcgccctggc tgccgacatc  
 60  
 gggttacttga tccgcgtgga gccggggcgta caaactccgg aattcaccct ggaaaacgcc  
 120  
 tccggttcct gccgggattc ggcggtggtg ctggtgcaac tgctgcgcaa cctgggcctg  
 180  
 gcggcgcgat ttgtgtctgg ctatctgac caactgaccg ccgacgtcaa agccctcgac  
 240  
 ggcccgtccg gcaccgaggt ggatttcacc gacctgcatg cctgggtgca agtgtatttg  
 300  
 cccggcgcc  
 309

<210> 774  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 774  
 Pro Pro Leu Pro Ala Val Asp Phe Leu Val Gly Leu Asn Gln Arg Leu  
 1 5 10 15  
 Ala Ala Asp Ile Gly Tyr Leu Ile Arg Val Glu Pro Gly Val Gln Thr  
 20 25 30  
 Pro Glu Phe Thr Leu Glu Asn Ala Ser Gly Ser Cys Arg Asp Ser Ala  
 35 40 45  
 Trp Leu Leu Val Gln Leu Leu Arg Asn Leu Gly Leu Ala Ala Arg Phe  
 50 55 60  
 Val Ser Gly Tyr Leu Ile Gln Leu Thr Ala Asp Val Lys Ala Leu Asp  
 65 70 75 80  
 Gly Pro Ser Gly Thr Glu Val Asp Phe Thr Asp Leu His Ala Trp Cys  
 85 90 95  
 Glu Val Tyr Leu Pro Gly Ala  
 100

<210> 775  
 <211> 4125  
 <212> DNA  
 <213> Homo sapiens

<400> 775  
 nncaggatgg gcgcgaacaa tggcaaacag tacggcagtg agggcaaagg cagctcgagc  
 60  
 atctcatctg acgtgagttc aagtacagat cacacgcca ctaaagcca gaagaatgtg  
 120  
 gctaccagcg aagactccga cctgagcatg cgcacactga gcacgccag cccagccctg  
 180

atatgtccac cgaatctccc aggatttcag aatggaagg gctcgtccac ctccctgctc  
240  
tccatcaccg gggagacggg ggccatgggt cactccccgc ccccgacccg cctcacacac  
300  
ccgctcatcc ggctcgccctc cagaccccag aaggatcagg ccagcataga ccggctcccc  
360  
gaccactcca tgggtgcagat cttctccttc ctgcccacca accagctgtg ccgctgcgcg  
420  
cgagtgtgcc gccgctggta caacctggcc tgggaccgc ggctctggag gactatccgc  
480  
ctgacgggcg agaccatcaa cgtggaccgc gccctcaagg tgcagaccg cagactctgc  
540  
caggacaccc ccaacgtgtg tctcatgctg gaaaccgtaa ctgtcagtgg ctgcaggcgg  
600  
ctcacagacc gagggctgta caccatcgcc cagtgtgccc ccgaactgag gcgactggaa  
660  
gtctcaggct gttacaatat ctccaacgag gccgtctttg atgtgggtgtc cctctgccct  
720  
aatctggagc acctggatgt gtcaggatgc tccaaagtga cctgcatcag cttgacccgg  
780  
gaggcctcca ttaaactgtc acccttgcat ggcaaacaga ttcccatccg ctacctggac  
840  
atgacggact gcttcgtgct ggaggacgaa ggctgcaca ccacgcggc gcactgcacg  
900  
cagctcacc accctctacct gcgccgtgc gtccgcctga ccgacgaagg cctgcgctac  
960  
ctggtgatct actgcgcctc catcaaggag ctgagcgtca gcgactgccg cttcgtcage  
1020  
gacttcggcc tgcgggagat cgccaagctg gagtccccgc tgcggtacct gagcatcgcg  
1080  
cactgcggcc gggtcaccga cgtgggcac cgtacgtgg ccaagtactg cagcaagctg  
1140  
cgctacctca acgcgagggg ctgcgagggc atcacggacc acggtgtgga gtacctcgcc  
1200  
aagaactgca ccaaactcaa atccctggat atcggcaa at gccctttggg atccgacacg  
1260  
ggcctggagt gcctggccct gaactgcttc aacctcaagc ggctcagcct caagtccctgc  
1320  
gagagcatca ccggccaggg cttgcagatc gtggccgcca actgctttga cctccagacg  
1380  
ctgaatgtcc aggactgcga ggtctccgtg gaggccctgc gctttgtcaa acgccactgc  
1440  
aagcgtgcg tcatcgagca caccaaccgc gctttcttct gaagggacag agttcatccg  
1500  
gcgttgatt cacacaaacc tgaacaaagc aaatTTTTTTT aaaagcagcg tatgtaagca  
1560  
ccgacacca ctcaaaacag ctctttcttc cgggaagggt attaggaatc tggcctttat  
1620  
tttctctcat ttctcatggg caacagaggc caaagaaacg aagcaagaca aacagcaaac  
1680  
aggcattttg gtcagggtcat ttgtaggcag tttctcttct cacaaaagat gtacttaagc  
1740  
aggctgatcg ctgttccttg agcaaggcgc ttactctcct ccgctcaggc cccaaggcc  
1800

gccctttccc tcgcacacag gccccacccc cacagttcca cgcccccccc ccaaggccac  
1860  
accctccctc cctagagcag cagcgaggat ccatcatcag aatcacagtg ctctccagac  
1920  
ctcctctcta aactgcttca ttgacctaaag tcactctctt caatcccaca cccatggaca  
1980  
ttcttgtcaa ctcaatacca tagcactttg cataggcaaa atacttttca ggctttttta  
2040  
aaaaattcat tacagcaaac agctggggaa ggacatgcag tcctccccc gctctgtcaa  
2100  
tgactatgac cttggccaaa gcacttcact gctctgggct gcagcttcca gcactgaatc  
2160  
agaggccaca cagcccaaag attagcttca tgtccattat agcattgagg gagcagagat  
2220  
accatacac agaagcacct tggcatagag caccaggca tcgacctctt ccaggagaac  
2280  
tgattctgtg gatggatgtg atttcaggag attgtgcagt gccagcatca gtgcataaag  
2340  
ggctctgtat gtcctttggc tgcaaatcac ccacttcctt gtgtttcagt gggagaattt  
2400  
cctctccac ctcctcacat cctcttttgc caggctggat gctgtcgtct ctgtacacaa  
2460  
atactttctg cattcccccc tccacaccat cctagcgagg caccagcaca cctaatacaca  
2520  
gcaaagccca gatccccca tcagttgctt ttactcagtg ttttcaaata ggagtaaagg  
2580  
cccttgcaat ttttaattaa caagcaaggc ccaagggaaac acatgtcctc aaaagttttt  
2640  
ctgatccctc gccttgacaa cctggcatgc atcaggcaca tctgtcctac agctggcaga  
2700  
gacagatgcc tcggttcttt gtcattcaga ttgcatttga cctcttctca tctatttatt  
2760  
tctttataca tccagacttc atcacatgaa gcctattggg gttaagtttg taagtgttta  
2820  
attgtgcaaa ttgccacct gtgtacctcc tccatgtctg tctgctgtgt ttccacccaa  
2880  
gaatgcaaag cagacttcca ggtgttttaa ttctgttcac tcaacaatgc cagatgaatg  
2940  
gaagaggga cacactgaga tgacttagac tctgggtccac caaccagacc cttggaaagg  
3000  
aatactaaaa tcattacaag gtatggattt taaatggatg aaacttcaaa ttatcttatt  
3060  
tggatagaag tctatattct agcctcattt gcatgaagtc agatagccag aagaaattcc  
3120  
attgctgggt ttcacgaaat tcacttgtct ttgctaata aacacatggc cctttcccag  
3180  
attattctct agccaagccc cacttttgtt acgttgaaat cctcattta tttcttctc  
3240  
aaaatgcca ttatccaaat gcagaacctc tgcacttcca agccagttat gctgaatttg  
3300  
tcaaacttag acacccttga caactgcact cctactgtag gctcctgtgc atactgtcgt  
3360  
cttctgtggg ggatggagag gttagtgtga tgaggtggtg tctgcccagg aggtttcttt  
3420

caaacatcat ggcctcccat ccaatcaaca tcatacaatt acatgtgtaa tcaaggctct  
 3480  
 gtgccatggg ggaaatgaat catttagcta ggccaggatc tagtgaaagc cacagagttt  
 3540  
 aaaaccatga aagaagttga aggcagcatt cctcagctct gtgacttggtg accctatttg  
 3600  
 aagtttcagg atttgggtgt cacaaaggat tgtccctaatt ccttggccct ggggtcttcc  
 3660  
 gagtgagctg gtttaatact ctgagaatga gcaggagat ccagagaatg aatccctgac  
 3720  
 cgcatacct aaactgtctt ccaaaccatga gacaaagctg actgttcaca ctgattgccc  
 3780  
 agcacatacc gtcttgccag tttcttcttt tctcccagtc tctgttcat ccattctgtt  
 3840  
 ctcccttggg gtgggaatct atgatggagg ttactgggga aacagctcag cagatttttg  
 3900  
 gagaccaaac caaaggtctc actaggaaat ttatctgttt taaaacattg ctcccttcc  
 3960  
 ggctctgcta aattgaatgc tcattgtttg ttgttggtgt tttttaattc taatgttcaa  
 4020  
 atcactgcgt gctgtatgaa tctagaaagc ctttaatttac taccaagaaa taaagcaata  
 4080  
 tgttcgtaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa  
 4125

&lt;210&gt; 776

&lt;211&gt; 483

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 776

Tyr	Gly	Ser	Glu	Gly	Lys	Gly	Ser	Ser	Ser	Ile	Ser	Ser	Asp	Val	Ser
1				5					10					15	
Ser	Ser	Thr	Asp	His	Thr	Pro	Thr	Lys	Ala	Gln	Lys	Asn	Val	Ala	Thr
			20					25					30		
Ser	Glu	Asp	Ser	Asp	Leu	Ser	Met	Arg	Thr	Leu	Ser	Thr	Pro	Ser	Pro
		35					40					45			
Ala	Leu	Ile	Cys	Pro	Pro	Asn	Leu	Pro	Gly	Phe	Gln	Asn	Gly	Arg	Gly
	50					55					60				
Ser	Ser	Thr	Ser	Ser	Ser	Ser	Ile	Thr	Gly	Glu	Thr	Val	Ala	Met	Val
65					70					75				80	
His	Ser	Pro	Pro	Pro	Thr	Arg	Leu	Thr	His	Pro	Leu	Ile	Arg	Leu	Ala
				85					90					95	
Ser	Arg	Pro	Gln	Lys	Asp	Gln	Ala	Ser	Ile	Asp	Arg	Leu	Pro	Asp	His
		100						105					110		
Ser	Met	Val	Gln	Ile	Phe	Ser	Phe	Leu	Pro	Thr	Asn	Gln	Leu	Cys	Arg
		115					120					125			
Cys	Ala	Arg	Val	Cys	Arg	Arg	Trp	Tyr	Asn	Leu	Ala	Trp	Asp	Pro	Arg
	130					135					140				
Leu	Trp	Arg	Thr	Ile	Arg	Leu	Thr	Gly	Glu	Thr	Ile	Asn	Val	Asp	Arg
145					150					155				160	
Ala	Leu	Lys	Val	Leu	Thr	Arg	Arg	Leu	Cys	Gln	Asp	Thr	Pro	Asn	Val
				165					170					175	
Cys	Leu	Met	Leu	Glu	Thr	Val	Thr	Val	Ser	Gly	Cys	Arg	Arg	Leu	Thr



180 185 190  
 Asp Arg Gly Leu Tyr Thr Ile Ala Gln Cys Cys Pro Glu Leu Arg Arg  
 195 200 205  
 Leu Glu Val Ser Gly Cys Tyr Asn Ile Ser Asn Glu Ala Val Phe Asp  
 210 215 220  
 Val Val Ser Leu Cys Pro Asn Leu Glu His Leu Asp Val Ser Gly Cys  
 225 230 235 240  
 Ser Lys Val Thr Cys Ile Ser Leu Thr Arg Glu Ala Ser Ile Lys Leu  
 245 250 255  
 Ser Pro Leu His Gly Lys Gln Ile Ser Ile Arg Tyr Leu Asp Met Thr  
 260 265 270  
 Asp Cys Phe Val Leu Glu Asp Glu Gly Leu His Thr Ile Ala Ala His  
 275 280 285  
 Cys Thr Gln Leu Thr His Leu Tyr Leu Arg Arg Cys Val Arg Leu Thr  
 290 295 300  
 Asp Glu Gly Leu Arg Tyr Leu Val Ile Tyr Cys Ala Ser Ile Lys Glu  
 305 310 315 320  
 Leu Ser Val Ser Asp Cys Arg Phe Val Ser Asp Phe Gly Leu Arg Glu  
 325 330 335  
 Ile Ala Lys Leu Glu Ser Arg Leu Arg Tyr Leu Ser Ile Ala His Cys  
 340 345 350  
 Gly Arg Val Thr Asp Val Gly Ile Arg Tyr Val Ala Lys Tyr Cys Ser  
 355 360 365  
 Lys Leu Arg Tyr Leu Asn Ala Arg Gly Cys Glu Gly Ile Thr Asp His  
 370 375 380  
 Gly Val Glu Tyr Leu Ala Lys Asn Cys Thr Lys Leu Lys Ser Leu Asp  
 385 390 395 400  
 Ile Gly Lys Cys Pro Leu Val Ser Asp Thr Gly Leu Glu Cys Leu Ala  
 405 410 415  
 Leu Asn Cys Phe Asn Leu Lys Arg Leu Ser Leu Lys Ser Cys Glu Ser  
 420 425 430  
 Ile Thr Gly Gln Gly Leu Gln Ile Val Ala Ala Asn Cys Phe Asp Leu  
 435 440 445  
 Gln Thr Leu Asn Val Gln Asp Cys Glu Val Ser Val Glu Ala Leu Arg  
 450 455 460  
 Phe Val Lys Arg His Cys Lys Arg Cys Val Ile Glu His Thr Asn Pro  
 465 470 475 480  
 Ala Phe Phe

<210> 777  
 <211> 705  
 <212> DNA  
 <213> Homo sapiens

<400> 777  
 ggtaccatcg tttttaaaccc taattaagat attactcatt cttgttggtg cccaattcca  
 60  
 caccaatctg ctctttaatg ccagactgat ggctctaaca atccttatta actccttttt  
 120  
 gtggcttcaa ggaaaaacaa aaacctcttc tctcattcac cacctctagg ccaggagaaa  
 180  
 ttatttttgg ttcaggcttt cacagtgggg gtctgaaagt gaccagtcta gaaaaggatg  
 240

actcagcaaa aggagagctc tgaaggtccc tgaggcggca cgggccagca ttattaggtc  
 300  
 acatggtatg acctgaaaca aatacgttct tcccaaattgt ggcaggaccg ggagagcttc  
 360  
 tcaccaggag ggaaccgccg caatgaccgc cggacgtcca gcaacacttg ttggtagtcc  
 420  
 ttgctcatct gccgtagggt cttccctgat ataggaggtg ggtcattggc attgacattg  
 480  
 aggagcttgg gccacacttt tcgtctgata tcatcagtca ggagccctcc ttcactgata  
 540  
 gccatgcgtc taagggcagc cacatcagtg ggatcactgt tcagagcctg gtgtatctct  
 600  
 aacactttct ttttcctttt ggcgttaaag tctgccttct ccgcgccgcc gtcccagtgg  
 660  
 ccggaggtgg gccgtccctt gcgcactccg gaggccatcc ccggg  
 705

<210> 778  
 <211> 134  
 <212> PRT  
 <213> Homo sapiens

<400> 778  
 Met Ala Ser Gly Val Arg Arg Gly Arg Pro Thr Ser Gly His Trp Asp  
 1 5 10 15  
 Gly Gly Ala Glu Lys Ala Asp Phe Asn Ala Lys Arg Lys Lys Lys Val  
 20 25 30  
 Leu Glu Ile His Gln Ala Leu Asn Ser Asp Pro Thr Asp Val Ala Ala  
 35 40 45  
 Leu Arg Arg Met Ala Ile Ser Glu Gly Gly Leu Leu Thr Asp Glu Ile  
 50 55 60  
 Arg Arg Lys Val Trp Pro Lys Leu Leu Asn Val Asn Ala Asn Asp Pro  
 65 70 75 80  
 Pro Pro Ile Ser Gly Lys Asn Leu Arg Gln Met Ser Lys Asp Tyr Gln  
 85 90 95  
 Gln Val Leu Leu Asp Val Arg Arg Ser Leu Arg Arg Phe Pro Pro Gly  
 100 105 110  
 Glu Lys Leu Ser Arg Ser Cys His Ile Trp Glu Glu Arg Ile Cys Phe  
 115 120 125  
 Arg Ser Tyr His Val Thr  
 130

<210> 779  
 <211> 322  
 <212> DNA  
 <213> Homo sapiens

<400> 779  
 tccggacatg tgcaacaat tcaatgatgt ggtgcgtcga catggtgtgc atcactctgt  
 60  
 gactgtgagt gattctgagg ataccgttgc gccgtcccag ctggttcgat cccctcgtaa  
 120  
 cgccttgctt ttgaaggaac ccagtgggaa ggctagacca agtaaatatg aatcaccaaa  
 180

cgccagcaac ttcacgtca ggcacgtggc aactggcaaa gagggcactg atgatgagta  
 240  
 tgctaactca aactactact actcgatgtc tgccaatcga ctaggagacg aggaaacgga  
 300  
 ggaaatgata ggtttggcta cc  
 322

<210> 780  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 780  
 Met Cys Lys Gln Phe Asn Asp Val Val Arg Arg His Gly Val His His  
 1 5 10 15  
 Ser Val Thr Val Ser Asp Ser Glu Asp Thr Val Ala Pro Ser Gln Leu  
 20 25 30  
 Val Arg Ser Pro Arg Asn Ala Leu Pro Leu Lys Glu Pro Ser Gly Lys  
 35 40 45  
 Ala Arg Pro Ser Lys Tyr Glu Ser Pro Asn Ala Ser Asn Phe Ile Val  
 50 55 60  
 Arg His Val Ala Thr Gly Lys Glu Gly Thr Asp Asp Glu Tyr Ala Asn  
 65 70 75 80  
 Ser Asn Tyr Tyr Tyr Ser Met Ser Ala Asn Arg Leu Gly Asp Glu Glu  
 85 90 95  
 Thr Glu Glu Met Ile Gly Leu Ala Thr  
 100 105

<210> 781  
 <211> 297  
 <212> DNA  
 <213> Homo sapiens

<400> 781  
 nntcgcgtgc ctggaatgtg tgtctgtgta tgtgtgtgta tgtatgtgtg tatggaatgt  
 60  
 gtgtgtatgn gaatatgtgt gtgtatngaa atgtgtgtgt gtgtttggaa tgtgtgtatg  
 120  
 gaatgtgtgt ctgtgtatgg aatatgtgtg agtatngaa tgtgtgtgtg tgtttggaat  
 180  
 gtatcgaatg tgtgtctgtg tgtaaggaat gtgtgtgtat ggaatgtgtt tacgtgcatg  
 240  
 tgtctggaat gtgtgtgtat ggaatgtgtg tgtatgtgta tngaatgtg tgtgtgt  
 297

<210> 782  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 782  
 Xaa Arg Val Pro Gly Met Cys Val Cys Val Cys Met Tyr Val  
 1 5 10 15  
 Cys Met Glu Cys Val Cys Met Xaa Ile Cys Val Cys Met Xaa Met Cys

```

          20          25          30
Val Cys Val Trp Asn Val Cys Met Glu Cys Val Ser Val Tyr Gly Ile
          35          40          45
Cys Val Ser Met Xaa Met Cys Val Cys Val Trp Asn Val Ser Asn Val
          50          55          60
Cys Leu Cys Val Arg Asn Val Cys Val Trp Asn Val Phe Thr Cys Met
65          70          75          80
Cys Leu Glu Cys Val Cys Met Glu Cys Val Cys Met Cys Met Xaa Met
          85          90          95
Cys Val Cys

```

<210> 783  
 <211> 612  
 <212> DNA  
 <213> Homo sapiens

<400> 783  
 accggtgacg taactgctcc cgctggcagc ttcgagggcg atgtcgattt gcgtgcccgg  
 60  
 caccgggtcg agtgagctgc ccagcagcaa gcccaccaca tcggtgacca gaccgatcac  
 120  
 ttgttgagc acgtcgatga cgggcaactt caaggaaatc caggtgcgga cttgcgcggt  
 180  
 ccgcacaaaa atcggctggg tgtcgatcaa ctgcgggttg ccaatcgcag aatttgcgcg  
 240  
 gttcgatgac acgtgtcttc accgtgatat tcagcagccc cagtacgtcc accggcaact  
 300  
 cgacggccac cgcgctggct ttgttggaaca gctgcacaaa gccctgaatc aggttgaaca  
 360  
 gttgcagggt gacgtccagg gcgctcttgt ccgtgccgtt ttgtatattg atcaggtcgc  
 420  
 ccaggtgcag gatctgcgtg cctggggcaa tcagcttgat tgcttcgagg ttattgatca  
 480  
 ccacctggac cgcattaccg cccagcttga gcacatcgat ggcggcctgg atcaactggc  
 540  
 cgacggtcgc gtcggctctt agcaactggc cgtagttgcc ggcgctgacg ttgaggcgga  
 600  
 tggccgacgc gt  
 612

<210> 784  
 <211> 190  
 <212> PRT  
 <213> Homo sapiens

<400> 784  
 Met Ser Ile Cys Val Pro Gly Thr Gly Ser Ser Glu Leu Pro Ser Ser  
 1 5 10 15  
 Lys Pro Thr Thr Ser Val Thr Arg Pro Ile Thr Leu Leu Ser Thr Ser  
 20 25 30  
 Met Thr Gly Asn Phe Lys Glu Ile Gln Val Arg Thr Cys Ala Val Arg  
 35 40 45  
 Thr Lys Ile Gly Trp Val Ser Ile Asn Cys Gly Leu Pro Ile Ala Glu

50 55 60  
 Phe Ala Arg Phe Asp Asp Thr Cys Leu His Arg Asp Ile Gln Gln Pro  
 65 70 75 80  
 Gln Tyr Val His Arg Gln Leu Asp Gly His Arg Ala Gly Phe Val Gly  
 85 90 95  
 Gln Leu His Lys Ala Leu Asn Gln Val Glu Gln Leu Gln Val Asp Val  
 100 105 110  
 Gln Gly Ala Leu Val Arg Ala Val Leu Tyr Ile Asp Gln Val Ala Gln  
 115 120 125  
 Val Gln Asp Leu Arg Ala Trp Gly Asn Gln Leu Asp Cys Phe Glu Val  
 130 135 140  
 Ile Asp His His Leu Asp Arg Ile Thr Ala Gln Leu Glu His Ile Asp  
 145 150 155 160  
 Gly Gly Leu Asp Gln Leu Ala Asp Gly Arg Val Gly Leu Glu Gln Leu  
 165 170 175  
 Val Val Val Ala Gly Ala Asp Val Glu Ala Asp Gly Arg Arg  
 180 185 190

<210> 785  
 <211> 408  
 <212> DNA  
 <213> Homo sapiens

<400> 785  
 accttggact acttcactat cgaccctcgg ctaggcgacg acgatgactt cgatcacctg  
 60  
 cttcaggccg cccacgctcg tggctctgtca gtactgctcg acgggggtggt caaccacgtc  
 120  
 tcgcgtcgca accgcatcgt gcaggatgcg cagagtgcgt gccagattc agacgccggc  
 180  
 cgtatgggttc gctgggtgtga ggggcgcctc gacgttttcg aggggtcatag tgacctggtc  
 240  
 gcactcaacc acgacaaccc cgcagtgcgg gaacatgtca cccggatcat gaactattgg  
 300  
 tgcggtcgcg gtgttgacgg ctggcggtcg gacgccgcta ttccgtcaat cctgagttct  
 360  
 gggctgcggg gctgcctccg gtgcgagaga agcgccctga cgtgagga  
 408

<210> 786  
 <211> 134  
 <212> PRT  
 <213> Homo sapiens

<400> 786  
 Thr Leu Asp Tyr Phe Thr Ile Asp Pro Arg Leu Gly Asp Asp Asp Asp  
 1 5 10 15  
 Phe Asp His Leu Leu Gln Ala Ala His Ala Arg Gly Leu Ser Val Leu  
 20 25 30  
 Leu Asp Gly Val Val Asn His Val Ser Arg Arg Asn Arg Ile Val Gln  
 35 40 45  
 Asp Ala Gln Ser Ala Gly Pro Asp Ser Asp Ala Gly Arg Met Val Arg  
 50 55 60  
 Trp Cys Glu Gly Arg Leu Asp Val Phe Glu Gly His Ser Asp Leu Val

```

65              70              75              80
Ala Leu Asn His Asp Asn Pro Ala Val Arg Glu His Val Thr Arg Ile
              85              90              95
Met Asn Tyr Trp Cys Gly Arg Gly Val Asp Gly Trp Arg Leu Asp Ala
              100             105             110
Ala Ile Pro Ser Ile Leu Ser Ser Gly Leu Arg Cys Cys Leu Arg Cys
              115             120             125
Glu Arg Ser Ala Leu Thr
              130

```

<210> 787  
 <211> 310  
 <212> DNA  
 <213> Homo sapiens

```

<400> 787
acgcgtgaag gggaatgaaa gggtttttcc tggatcaaaa tgatgcttgt ggcagacaca
60
gttggaacca cagacgatgc cacgcttgtg tcagcagtgc gacactggcc cacgtggcgt
120
ccttggtctc tcctcattgc tgccgtcact gtgtgctggg catgccctgc agttacccca
180
aagctttatg tcacaacatt gaggctggcg gagaaagacc ggccccttca cccacctta
240
gacttcctgg aagggccgcc cgggtccaca acctggcccg ttaactccct gggcagctgc
300
tgggggagaa
310

```

<210> 788  
 <211> 90  
 <212> PRT  
 <213> Homo sapiens

```

<400> 788
Met Met Leu Val Ala Asp Thr Val Gly Thr Thr Asp Asp Ala Thr Leu
1              5              10              15
Val Ser Ala Val Arg His Trp Pro Thr Trp Arg Pro Trp Ser Leu Leu
              20              25              30
Ile Ala Ala Val Thr Val Cys Trp Ala Cys Pro Ala Val Thr Pro Lys
              35              40              45
Leu Tyr Val Thr Thr Leu Arg Leu Ala Glu Lys Asp Arg Pro Leu His
              50              55              60
Pro Thr Leu Asp Phe Leu Glu Gly Pro Pro Gly Ser Thr Thr Trp Pro
65              70              75              80
Val Asn Ser Leu Gly Ser Cys Trp Gly Arg
              85              90

```

<210> 789  
 <211> 369  
 <212> DNA  
 <213> Homo sapiens

<400> 789

acgcgtgaag ttgcagcagc aagcaatctg cctcgcttct ggtgcccacc gaaaccaagg  
 60  
 tctgccagac agcagcgctg ggacctctcc cctccccagc aggatgggccc ggctctggaa  
 120  
 gcacgaggtg ttccaaagtg caaacaagct gctgttaaata aattattccc aaacgccaaa  
 180  
 gcccttgctg gtttgcttgc ttgctttttt ctttttttgc ctgcacaga tatcgctagg  
 240  
 gcagagtatt gacatttcgt tttctttttg ttatgggtga taaagcacgg tgtttcttgc  
 300  
 gagtgtatgc ctgtatttcc ctgcagagct gattgccagt ccattttctt ctatcccatc  
 360  
 cccattttc  
 369

<210> 790  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 790  
 Met Asp Trp Gln Ser Ala Leu Gln Gly Asn Thr Gly Ile His Ser Gln  
 1 5 10 15  
 Glu Thr Pro Cys Phe Ile Thr His Asn Lys Lys Lys Thr Lys Cys Gln  
 20 25 30  
 Tyr Ser Ala Leu Ala Ile Ser Val Arg Gly Lys Lys Arg Lys Lys Gln  
 35 40 45  
 Ala Ser Lys Pro Ala Arg Ala Leu Ala Phe Gly Asn Asn Tyr Leu Thr  
 50 55 60  
 Ala Ala Cys Leu His Phe Gly Thr Pro Arg Ala Ser Arg Ala Gly Pro  
 65 70 75 80  
 Ser Cys Trp Gly Gly Glu Arg Ser Gln Arg Cys Cys Leu Ala Asp Leu  
 85 90 95  
 Gly Phe Gly Gly His Gln Lys Arg Gly Arg Leu Leu Ala Ala Ala Thr  
 100 105 110  
 Ser Arg

<210> 791  
 <211> 420  
 <212> DNA  
 <213> Homo sapiens

<400> 791  
 nctctgacca aaaggaaggt atatgaaaac acaacactag gcttcattgt tgaagttgaa  
 60  
 ggtcttccag ttcctgggtg gaaatgggtat cgaaataaat ctttactaga gccagatgaa  
 120  
 agaatcaaaa tggaaagagt gggtaatgtg tgttcactgg aaatttctaa cattcaaaaa  
 180  
 ggagaagggg gagagtacat gtgtcatgct gtaaacatca taggggaagc aaagagcttt  
 240  
 gcaaatgtag acataatgcc ccaggaagaa agagtgggtg cactaccacc tccagtaaca  
 300

catcagcatg tcatggagtt tgatttggaa cacaccacat catcaagaac accttctcct  
360

caagaaattg tcctggaagt tgaattaagt gaaaaagacg ttaaagaatt tgagaagcag  
420

<210> 792

<211> 138

<212> PRT

<213> Homo sapiens

<400> 792

Thr	Lys	Arg	Lys	Val	Tyr	Glu	Asn	Thr	Thr	Leu	Gly	Phe	Ile	Val	Glu
1				5					10					15	
Val	Glu	Gly	Leu	Pro	Val	Pro	Gly	Val	Lys	Trp	Tyr	Arg	Asn	Lys	Ser
			20					25					30		
Leu	Leu	Glu	Pro	Asp	Glu	Arg	Ile	Lys	Met	Glu	Arg	Val	Gly	Asn	Val
		35					40					45			
Cys	Ser	Leu	Glu	Ile	Ser	Asn	Ile	Gln	Lys	Gly	Glu	Gly	Gly	Glu	Tyr
	50					55					60				
Met	Cys	His	Ala	Val	Asn	Ile	Ile	Gly	Glu	Ala	Lys	Ser	Phe	Ala	Asn
65					70					75					80
Val	Asp	Ile	Met	Pro	Gln	Glu	Glu	Arg	Val	Val	Ala	Leu	Pro	Pro	Pro
			85						90					95	
Val	Thr	His	Gln	His	Val	Met	Glu	Phe	Asp	Leu	Glu	His	Thr	Thr	Ser
			100						105					110	
Ser	Arg	Thr	Pro	Ser	Pro	Gln	Glu	Ile	Val	Leu	Glu	Val	Glu	Leu	Ser
		115					120						125		
Glu	Lys	Asp	Val	Lys	Glu	Phe	Glu	Lys	Gln						
	130						135								

<210> 793

<211> 479

<212> DNA

<213> Homo sapiens

<400> 793

nacgcgtgcc gggtctcgga aattcattat gggaatgtgc gcgttggtgga gatgctcaga  
60  
ccgcgaacag tactgcggga acccaaacga tcatttttaa cccagacgt ccctgaacca  
120  
aagccaaagt ctacagggtca ctggggcaga ggccgcccga aaccagcttc ccctcccggc  
180  
ctaggcgcg caggtccccg cccagccggg gcgatccttt ggtcggacag tgagggttggg  
240  
agcccaccgc acccaagtcc gccgcattca cccggcgag gcgacccccg acgggcagcc  
300  
getcaccttc tcctggcccc ggcttcagga aaactgcctg gaggtggccg gggttcccta  
360  
gcggaggctg ggcgggcggg ttcgcgcctg cctcagtctc cccatccgtg gcccggggga  
420  
tggagcccg tgcgcgagga ggctgcggca ggtcccagcc aggtgccctg gaacgtgga  
479

<210> 794



<211> 159  
 <212> PRT  
 <213> Homo sapiens

<400> 794  
 Xaa Ala Cys Arg Phe Ser Glu Ile His Tyr Gly Asn Val Arg Val Val  
 1 5 10 15  
 Glu Met Leu Arg Pro Arg Thr Val Leu Arg Glu Pro Lys Arg Ser Phe  
 20 25 30  
 Leu Thr Pro Asp Val Pro Glu Pro Lys Pro Lys Ser Thr Gly His Trp  
 35 40 45  
 Gly Arg Gly Arg Pro Lys Pro Ala Ser Pro Pro Gly Leu Gly Ala Pro  
 50 55 60  
 Gly Pro Arg Pro Ala Gly Ala Ile Leu Trp Ser Asp Ser Glu Val Gly  
 65 70 75 80  
 Ser Pro Pro His Pro Ser Pro Pro His Pro Pro Gly Ala Gly Asp Pro  
 85 90 95  
 Arg Arg Ala Ala Ala His Leu Leu Leu Ala Pro Ala Ser Gly Lys Leu  
 100 105 110  
 Pro Gly Gly Gly Arg Gly Ser Leu Ala Glu Ala Gly Arg Arg Ala Ser  
 115 120 125  
 Arg Leu Pro Gln Ser Pro His Pro Trp Pro Gly Gly Trp Ser Pro Leu  
 130 135 140  
 Arg Ala Glu Ala Ala Ala Gly Pro Ser Gln Val Pro Trp Asn Val  
 145 150 155

<210> 795  
 <211> 1418  
 <212> DNA  
 <213> Homo sapiens

<400> 795  
 gccggcggcg gggaggccgg ggcttgcagg cccccggtac gacaagatcc ggactccggc  
 60  
 ccggactacg aggcgctgcc ggctggagcc actgtcacca cgcacatggt ggcaggcgcc  
 120  
 gtggcaggga tcctggagca ctgcgtgatg taccatcatg actgcgtcaa gaccgcatg  
 180  
 cagagtctac agcctgaccc agctgcccgc tatcgcaatg tgttggaggc cctctggagg  
 240  
 attataagaa cggagggcct atggaggccc atgagggggc tgaacgtcac agcaacaggc  
 300  
 gcagggcctg cccacgcctt ttattttgcc tgctacgaaa agttaaaaaa gacattgagt  
 360  
 gatgtaatcc accctggggg caatagccat attgccaatg gtgcggccgg gtgtgtggca  
 420  
 acattacttc atgatgcagc catgaaccct gcggaaggct gatctgctga cttggggctc  
 480  
 tgaatctgga tactctccat caccggttgg ctgctgtcac catttccttc ctgcttgatg  
 540  
 gcactactag tgggtcaagca gaggatgcag atgtacaact caccatacca ccgggtgaca  
 600  
 gactgtgtac gggcagtggt gcaaaatgaa ggggcccggg ccttttaccg cagctacacc  
 660

acccagctga ccatgaacgt tcctttccaa gccattcact tcatgaccta tgaattcctg  
 720  
 caggagcact ttaacccccca gagacggtac aaccaagct cccacgtcct ctctggagct  
 780  
 tgcgcaggag ctgtagctgc cgcagccaca accccactgg acgtttgcaa aacactgctc  
 840  
 aacacccagg agtccttggc tttgaactca cacattacag gacatatcac aggcatggct  
 900  
 agtgccttca ggacggtata tcaagtaggt ggggtgaccg cctatttccg aggggtgcag  
 960  
 gccagagtaa tttaccagat cccctccaca gccatcgcat ggtctgtgta tgagttcttc  
 1020  
 aaatacctaa tcactaaaag gcaagaagag tggagggctg gcaagtgaag tagcactgaa  
 1080  
 cgaagccagg gggtcagatg aactgctgc atcctgggtca cattctctgt ctctgggaat  
 1140  
 gctccacact caagtggagt tagaaggaag gtagaggggc tctccccag gattttggtg  
 1200  
 ttttgactaa caccagttcc tgccaacctc tggtgccacc acctttcctt ccaggcccta  
 1260  
 agcacgtgca gcaaagcaca ccacagcacc tttgataacc tctctccatc ctgggcctga  
 1320  
 tgacctgctc tagactgtta tagagggata agcagctcat tcccctgggt cctaataaaa  
 1380  
 agcctttaaa ttaaaaaaaaaa aaaaaaaaaa aaaaaaaaaa  
 1418

<210> 796  
 <211> 176  
 <212> PRT  
 <213> Homo sapiens

<400> 796  
 Met Ala Leu Leu Val Val Lys Gln Arg Met Gln Met Tyr Asn Ser Pro  
 1 5 10 15  
 Tyr His Arg Val Thr Asp Cys Val Arg Ala Val Trp Gln Asn Glu Gly  
 20 25 30  
 Ala Gly Ala Phe Tyr Arg Ser Tyr Thr Thr Gln Leu Thr Met Asn Val  
 35 40 45  
 Pro Phe Gln Ala Ile His Phe Met Thr Tyr Glu Phe Leu Gln Glu His  
 50 55 60  
 Phe Asn Pro Gln Arg Arg Tyr Asn Pro Ser Ser His Val Leu Ser Gly  
 65 70 75 80  
 Ala Cys Ala Gly Ala Val Ala Ala Ala Ala Thr Thr Pro Leu Asp Val  
 85 90 95  
 Cys Lys Thr Leu Leu Asn Thr Gln Glu Ser Leu Ala Leu Asn Ser His  
 100 105 110  
 Ile Thr Gly His Ile Thr Gly Met Ala Ser Ala Phe Arg Thr Val Tyr  
 115 120 125  
 Gln Val Gly Gly Val Thr Ala Tyr Phe Arg Gly Val Gln Ala Arg Val  
 130 135 140  
 Ile Tyr Gln Ile Pro Ser Thr Ala Ile Ala Trp Ser Val Tyr Glu Phe  
 145 150 155 160  
 Phe Lys Tyr Leu Ile Thr Lys Arg Gln Glu Glu Trp Arg Ala Gly Lys

165

170

175

<210> 797  
 <211> 585  
 <212> DNA  
 <213> Homo sapiens

<400> 797  
 aaatttaccg gcggaacaaac ccacgtcacc gactacacca acgcctcgcg caccatgctc  
 60  
 ttcaacatcc acacgctgga gtgggatgcg aagatgctgg agattctcga cgtgccgcgc  
 120  
 gagatgctgc cggaagttaa gtcgtcttca gaaatctacg gccgcaccaa aagcggatc  
 180  
 gctatcggcg gcatcgcggg cgaccaacag gctgctctgt tcggccagat gtgcgtggaa  
 240  
 gccgggcagg ccaagaacac ttatggcacc ggctgcttcc tgctgatgaa caccggcgac  
 300  
 aaagccgtca aatccaaaca cggcatgctc accaccatcg cctgcgggtcc acgcggcgaa  
 360  
 gtggcttatg cgctggaagg cgcggtgttc aacgggtggt cccccgtgca gtggctgcgt  
 420  
 gatgagctga agatcatcgc ggacgccacc gacaccgaat acttcgccgg caaggtcaag  
 480  
 gacagcaacg gcgtctacct ggtgccggcc tttaccggcc tgggcgctcc gtactgggac  
 540  
 ccgtatgccc gtggcgcttt gtttggcctg actcgtggcg tacgc  
 585

<210> 798  
 <211> 195  
 <212> PRT  
 <213> Homo sapiens

<400> 798  
 Lys Phe Thr Gly Gly Lys Thr His Val Thr Asp Tyr Thr Asn Ala Ser  
 1 5 10 15  
 Arg Thr Met Leu Phe Asn Ile His Thr Leu Glu Trp Asp Ala Lys Met  
 20 25 30  
 Leu Glu Ile Leu Asp Val Pro Arg Glu Met Leu Pro Glu Val Lys Ser  
 35 40 45  
 Ser Ser Glu Ile Tyr Gly Arg Thr Lys Ser Gly Ile Ala Ile Gly Gly  
 50 55 60  
 Ile Ala Gly Asp Gln Gln Ala Ala Leu Phe Gly Gln Met Cys Val Glu  
 65 70 75 80  
 Ala Gly Gln Ala Lys Asn Thr Tyr Gly Thr Gly Cys Phe Leu Leu Met  
 85 90 95  
 Asn Thr Gly Asp Lys Ala Val Lys Ser Lys His Gly Met Leu Thr Thr  
 100 105 110  
 Ile Ala Cys Gly Pro Arg Gly Glu Val Ala Tyr Ala Leu Glu Gly Ala  
 115 120 125  
 Val Phe Asn Gly Gly Ser Pro Val Gln Trp Leu Arg Asp Glu Leu Lys  
 130 135 140  
 Ile Ile Ala Asp Ala Thr Asp Thr Glu Tyr Phe Ala Gly Lys Val Lys

145		150		155		160									
Asp	Ser	Asn	Gly	Val	Tyr	Leu	Val	Pro	Ala	Phe	Thr	Gly	Leu	Gly	Ala
			165					170						175	
Pro	Tyr	Trp	Asp	Pro	Tyr	Ala	Arg	Gly	Ala	Leu	Phe	Gly	Leu	Thr	Arg
			180					185					190		
Gly	Val	Arg													
		195													

&lt;210&gt; 799

&lt;211&gt; 2152

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 799

```

nntttttttt tttttttgat ggtgcatgta gttttattta tgtgttttca tctggaaaac
60
caagtgtccc agcagcatga ctgaacatca ctcaattccc ctacttgatc tacaaggcca
120
acgccgagag cccagaccag gattccaaac acactgcacg agaatattgt ggatccgctg
180
tcaggtaagt gtccgtcact gacccagacg ctgttacgtg gcacatgact gtacagtgcc
240
acgtaacagc actgtacttt tctcccataa acagttacct gccatgtatc tacatgatcc
300
agaacatttt gaacagttaa ttctgacact tgaataatcc catcaaaaac cgtaaaatca
360
ctttgatggt gtaacgacaa catagcatca ctttacgaca gaatcatctg gaaaaacaga
420
acaacgaata catacatctt aaaaaatgct ggggtggggc aggcacagct cacgcctgta
480
atcccagcac tttgggaggg tgaggcgggt ggatcacgta atcccagcac tttgaggggc
540
agaggtggac agatcatgag gtcaagagat caagaccatc ctgggtcaaaa tgggtgaaacc
600
ccgtctctac taaaaataca aaaattagct gagcttagtg gcacacacct gtagtcccag
660
ctacttggga ggctgaggca ggagaatcgc ttgaacccag gagacacagg ctgcagtgc
720
tcgagatcac gccactgcac tccagcctgg cgacagagcg agactccatc tcaaaaaaaaa
780
aaaccaacaa aaaaactggg gtgaaaatct aacggataat tcagcattgc cgcataaaaa
840
cctccgcaaa accggccaaa caaacgcgga caggcggccc tggcgtcagc gcacgacagt
900
cacgtgggga ggggcagtgg ccaggctcggc cttggacggg tacaccacct tcaggctccc
960
ttccagatcc accaccgga cctgctccac caccagaagg gagggcccgt cctttccagc
1020
actgggattc gttgtgggat ctggaagttg tccagagact gcacggctt cagtatctga
1080
gagtgatcct tcctctttat tttctaaagt gtactttttc atttctgcca ttttcagaat
1140
gagggcatcc atgacatcct tgcaaatctg cagactgggtg gcacttggtta cttccaaaaa
1200

```

caaatcagaa gtcgttttct taacctttgt cttctcactg ttgggttattg gtgggaagga  
 1260  
 aatcacatca ccgtctgcat ccacaagaca cgggtaattt tcatttccat ccagcaagtg  
 1320  
 aaggatatctg tgcaggcccg acacactctg ccgcttcttc tgcttctct gctcctcggc  
 1380  
 ctccagctgc agctgccgca ccagctcctt ggccttggct tctttccgcc ccaaggggac  
 1440  
 aatcttgagg tcttgtgggg gccgggcgca gtacagcagg ggcctttga cggcacggag  
 1500  
 ctctggttg gcaaggggtg cagccgtcct cttctcacag agatcttcgt ggagcttggt  
 1560  
 ctgcgaggtg aggaagcgct tgagtgcatt ccctggctgc aggtccatgc ctcgcaccac  
 1620  
 ggccccaca atgtagggcc gcacatcccg gacctcgggg ctcactctga ctgtcagagg  
 1680  
 tacggggttt tcagagacgt gcaggaccct gagcagcagc cggccggcat ctcccacgtc  
 1740  
 ctgctcctcc ccataccac cttcccgcct ctgcttctc tccctcctct tcctccggct  
 1800  
 ctcttcttc tccgagccct cggcacggcc cttgcccttc ccgccaccac ggcctccgac  
 1860  
 gcgcaggtac tccaggatgg atctggctctg gcagccgctg accatcttct ccaggcgctt  
 1920  
 gtcctcagc ttgttcccac ggaaattgat ctccttgagc ttggggcagt ccgcaagctc  
 1980  
 tgcagggatc tcgctcagct ggttggtcga gaggtccaac gtcttgagcg aggccaggtg  
 2040  
 ggcgatgtcg gggctgagtt ctcggaggca gttgtcagca gccgccagtt cactgagcag  
 2100  
 gggcagcgcg ccggggcgaa agagctcggc gggaaaggag tctaggcaat tg  
 2152

<210> 800  
 <211> 95  
 <212> PRT  
 <213> Homo sapiens

<400> 800  
 Cys Cys Asn Asp Asn Ile Ala Ser Leu Tyr Asp Arg Ile Ile Trp Lys  
 1 5 10 15  
 Asn Arg Thr Thr Asn Thr Tyr Ile Leu Lys Asn Ala Gly Val Gly Gln  
 20 25 30  
 Ala Gln Leu Thr Pro Val Ile Pro Ala Leu Trp Glu Ala Glu Ala Gly  
 35 40 45  
 Gly Ser Arg Asn Pro Ser Thr Leu Arg Gly Arg Gly Gly Gln Ile Met  
 50 55 60  
 Arg Ser Arg Asp Gln Asp His Pro Gly Gln Asn Gly Glu Thr Pro Ser  
 65 70 75 80  
 Leu Leu Lys Ile Gln Lys Leu Ala Glu Leu Ser Gly Thr His Leu  
 85 90 95

<210> 801  
 <211> 424

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 801

nntcatgaat cgttataaac acaatgggta gtgtatatca tatctatagg agatactatg  
 60  
 tatcaaatta atcagctgtc tttttcttat gaaacaaaag aagtgttaaa gaatatttct  
 120  
 gtaacatttc ctaccaataa aataacagcc ataattggac cgaatggatg tggtaagtct  
 180  
 accctactta gccatctata tcgacttcat tcaacaaaaa acaaaatcac attaaacgga  
 240  
 aaaccttttag agtcttataa aggtcgcgaa tttgctcaat tggtagcagt cttaacacaa  
 300  
 tctagagacg ctatgattga tgattttctc gtaaaagata tcgttctcat gggacgggat  
 360  
 ccgtacaaac aacactttgg cacctatagt tctgaagatg ttaaaattgc agagcattat  
 420  
 atgn  
 424

&lt;210&gt; 802

&lt;211&gt; 122

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 802

Met	Tyr	Gln	Ile	Asn	Gln	Leu	Ser	Phe	Ser	Tyr	Glu	Thr	Lys	Glu	Val
1				5					10					15	
Leu	Lys	Asn	Ile	Ser	Val	Thr	Phe	Pro	Thr	Asn	Lys	Ile	Thr	Ala	Ile
		20						25				30			
Ile	Gly	Pro	Asn	Gly	Cys	Gly	Lys	Ser	Thr	Leu	Leu	Ser	His	Leu	Tyr
	35					40						45			
Arg	Leu	His	Ser	Thr	Lys	Asn	Lys	Ile	Thr	Leu	Asn	Gly	Lys	Pro	Leu
	50				55						60				
Glu	Ser	Tyr	Lys	Gly	Arg	Glu	Phe	Ala	Gln	Leu	Val	Ala	Val	Leu	Thr
65				70					75					80	
Gln	Ser	Arg	Asp	Ala	Met	Ile	Asp	Asp	Phe	Leu	Val	Lys	Asp	Ile	Val
			85				90						95		
Leu	Met	Gly	Arg	Asp	Pro	Tyr	Lys	Gln	His	Phe	Gly	Thr	Tyr	Ser	Ser
			100				105						110		
Glu	Asp	Val	Lys	Ile	Ala	Glu	His	Tyr	Met						
		115					120								

&lt;210&gt; 803

&lt;211&gt; 6863

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 803

gcgcggcccg gctggccgtc tgcgcaccct ctctcccctc ggctcttttc taggaaagct  
 60  
 gagcctcata gcttccggga gaagggtttc cggaagaaac ctccagtctg tgcagtatgt  
 120

aaggtgacca tcgatgggac aggcgtttcg tgcagagtct gcaaggtggc gacgcacaga  
180  
aaatgtgaag caaaggtgac ttcagcctgt caggccttgc ctcccgtgga gttgcggcga  
240  
aacacggccc cagtcaggcg catagagcac ctgggatcca ccaaattctct gaaccactca  
300  
aagcagcgca gcactctgcc caggagcttc agcctggacc cgctcatgga gcggcgctgg  
360  
gacttagacc tcacctacgt gacggagcgc atcttgggcg ccgccttccc cgcgcggccc  
420  
gatgaacagc ggcaccgggg ccacctgcgc gagctggccc atgtgctgca atccaagcac  
480  
cgggacaagt acctgctctt caacctttca gagaaaaggc atgacctgac ccgcttaaac  
540  
cccaagggtc aagacttcgg ctggcctgag ctgcatgctc cacccttggga caagctgtgc  
600  
tccatctgca aagccatgga gacatggctc agtgtgacc cacagcacgt ggtcgtacta  
660  
tactgcaagg gaaacaagg caagcttggg gtcacgttt ctgcctacat gcactacagc  
720  
aagatctctg caggggcgga ccaggcactg gccactctta ccatgcggaa attctgcgag  
780  
gacaaggtgg ccacagaact gcagccctcc cagcgtcgat atatcagcta cttcagtggg  
840  
ctgctatctg gctccatcag aatgaacagc agccctctct tcctgcacta tgtgctcatc  
900  
cccatgctgc cagcctttga acctggcaca ggcttccagc ccttccttaa aatctaccag  
960  
tccatgcagc ttgtctacac atctggagtc tatcacattg caggccctgg tccccagcag  
1020  
ctttgcatca gcctggagcc agccctcctc ctcaaaggcg atgtcatggt aacatgttat  
1080  
cacaaggggtg gccggggcac agaccggacc ctcgtgttcc gagtccagtt ccacacctgc  
1140  
accatccacg gaccacagct cactttcccc aaggaccagc ttgacgaggc ctggactgat  
1200  
gagaggttcc ctttccaagc ctccgtggag tttgtcttct cctccagccc cgagaagatc  
1260  
aaaggcagca ctccacggaa cgacccctcg gtctctgtcg actacaacac cactgagcca  
1320  
gccgtgcgct gggactecta tgagaacttc aaccagcacc acgaggacag tgtggatggc  
1380  
tccttgacct acaccgggg tcccctggat ggcagtcctt atgcccaggt gcagcggcct  
1440  
ccccggcaga ccccccggc acctctcca gagcctccac cccccccat gctctctgtc  
1500  
agcagcgact caggccattc ctccacgctg accacagagc cggctgctga gtcccctggc  
1560  
cggccgcccc ctacagctgc tgaacggcag gagctggatc gcctcctagg aggctgcgga  
1620  
gtggccagtg ggggcccggg agctgggcgc gagacggcca tcctagatga cgaagagcag  
1680  
cccactgtgg gcggaggccc ccacctcgga gtgtatccag gccataggcc tggcctcagc  
1740

cgccactgct cctgccgcca gggctaccgg gagccctgcg gggttcccaa tgggggctac  
1800  
taccggccag agggaaacct ggagaggagg cgactggcct acgggggcta tgagggatcc  
1860  
ccccagggct acgccgaggc ctcgatggag aagaggcgcc tctgccgatc gctgtcagag  
1920  
gggctatacc cctacccacc tgagatgggg aaaccagcca ctggggactt tggetaccgc  
1980  
gccccaggct accgggaggt ggtcatcctg gaggacctg ggctgcctgc cctataccca  
2040  
tgcccagcct gcgaggagaa gctggcgctg cctacagcag ccttgtatgg actgcggctg  
2100  
gagagggagg ctggagaagg gtgggcaagt gaggctggca agcctctcct gcacccagtg  
2160  
cggcctgggc acccgctgcc tctgctcttg cctgcctgtg ggcatcacca tgccccgatg  
2220  
cctgactaca gctgcctgaa gccacccaag gcaggcgagg aagggcacga gggctgctcc  
2280  
tacaccatgt gccccgaagg caggtatggg catccagggt accctgccct ggtgacatac  
2340  
agctatggag gagcagttcc cagttactgc ccagcatatg gccgtgtgcc tcatagctgt  
2400  
ggctctccag gagagggcag agggatatcc agccttggtg cccactcccc acgggctggc  
2460  
tccatttccc cgggcagccc gccctatcca caatctagga agctgagcta cgagatccct  
2520  
acggaggagg gaggggacag gtacccattg cctgggcacc tggcctcagc aggaccttg  
2580  
gcactctcag agtcgctgga gccggtgtcc tggagggagg gccccagtgg gcacagcaca  
2640  
ctgcctcggg ctccccgaga tgccccatgc agtgcttcgt cagagttgtc tggctccctc  
2700  
acgccccctgc acaccagcag tccagtccag ggcaaggaaa gcacccggcg acaggacacc  
2760  
aggtecccca cctcagcgcc cactcagaga ctgagtctg gcgaggcctt gccccctgtt  
2820  
tcccaggcag gcaccggaaa ggccccctgag ctgccgtcgg gaagtgggccc tgagcctctg  
2880  
gccccctagc cagtctctcc gaccttcctt cccagctcgc ccagtgactg gcctcaggaa  
2940  
aggagtccag ggggccactc agatggcgcc agtcctcgga gccctgtgcc caccacactt  
3000  
cctggcctcc gccacgcccc ctggcaaggc cctcgaggcc cccccgacag cccagatggg  
3060  
tctccccca ctctgtgcc ttcccagatg ccctggcttg tggccagccc agagccgcct  
3120  
cagagctcac ctacacctgc tttccccctg gctgcctcct atgacaccaa tggccttagc  
3180  
cagccccac ttctgagaa acgccacctg cccgggcccgg ggcaacagcc aggacctgg  
3240  
ggcccagagc aggcacatc gccagccaga ggcatcagtc accatgtcac cttegcacct  
3300  
ctgctctcag ataatgtccc ccaaacccca gagcctccta cacaagagag ccaaagcaat  
3360



gtcaagtttg tccaggatac atccaagtgc tggatacagc cacacctgtc ccgtgaccaa  
3420  
gccattgccc tgctgaagga caaggaccct ggggccttcc tgatcaggga cagtcattca  
3480  
ttccaaggag cttatgggct ggccctcaag gtggccacac cgccaccagc tgcccagccc  
3540  
tggaaagggg accccgtgga acagctgggc cgccatttcc tcatcgagac tgggccc aaa  
3600  
ggggtgaaga tcaagggtg cccagtgag ccctactttg gcagcctgtc cgccttggtc  
3660  
tcccagcact ccattctccc catctccctg ccctgctgcc tgcgcattcc cagcaaagat  
3720  
cctctggaag agaccccaga ggctccagtg cccaccaaca tgagcacagc ggcagacctc  
3780  
ctgcgtcagg gtgctgcctg cagcgtgctc tacttgacct cagtggagac agagtcactg  
3840  
acgggcccc aagctgtggc ccgggcccagc tctgcagctc tgagctgtag ccccgcccc  
3900  
acaccagctg ttgtccactt caagggtgtc gccagggca ttacactgac ggacaaccaa  
3960  
aggaagctct tctttcgccg ccattatcca gtgaacagca tcaccttctc cagcactgac  
4020  
cctcaagacc ggagatggac caaccagac gggaccacct ccaagatctt tggtttcgtg  
4080  
gccaagaagc cgggaagccc ctgggagaat gtgtgtcacc tctttgcaga gcttgacca  
4140  
gatcagcctg ctggcgccat tgtcaccttc atcaccaaag ttctactggg ccagagaaaa  
4200  
tgaaggaagg ccacaagctc agagcccaca tcaacactgc cccctccca gaccccaca  
4260  
gccctcacat cccctggcct ggaccagga gaccaggag aaagcacctt cccttaggaa  
4320  
tgaggagtgg gcatcaggcc tgggacactg ctctccttcc ccgccccag cctgctaagt  
4380  
taagtggaca ggcccacaag atgaccttgc atgtgagcag atggcagaga tgggtgtgtg  
4440  
aggggtgagg aggcattcagc agttgagccc cgaaggagat caggcagccc cacctgcagg  
4500  
agaacgtcag ccctccaggg gattacaggg gatcagcccc tgccagttcc acccagctgc  
4560  
aggtgccagc acggcaggga tgggagaggg gtggggagcg agtcactgcc tcctctgagc  
4620  
agagattcag agtaggatca catgaatagg ggaaaaaaga gagtctatct ttgtctaata  
4680  
ataaagaatt tctataaact ttagccgaaa ttggagtcaa cacttattca caggaaggtc  
4740  
aaagcctcat ctcccagggg acgtatctgt gctcaggcct gtagccaggc ccatggaaca  
4800  
tatgattccc atccctggcc caacattggc ccacatctcc ccatgagcaa gctgccttcg  
4860  
gctgccccca tccagcagtc ctgttccctg cccagtgagc tagaaaggct cctgggtccg  
4920  
gccatactga taaatacggg aactccatct ttatcggtg tataaacatc tctgggtctg  
4980

acatacattt catacatcgt aggggtgggaa gcgagggcca aagggaggcc cagcagcaca  
5040  
acagctcacc cgctttccct acagccctac ccgctctgtg caaaccaagg ccaacagctc  
5100  
ctgctgcctc ttcctccctg gaaaagtcac tgttacgggg agggggccag gggttgaagg  
5160  
attagaagga gatagagggc ttgggtgggga ggacacatgt aagtgctaga atcaaacact  
5220  
gaagcgaaac aggcaactgg cacaagcagc aagctgaggc atgggacggg gcaggaaaag  
5280  
gggagggagg ggccacgctg cccctctggg cttgctcagc taaggctctg gggctctgcc  
5340  
ctcacgctgg cagggagaca ggccccagag cctcagcccc aataccggg agctagggac  
5400  
atgggtggca ctggtaaaga aaggatggaa ggggagaaag gagtgaaggc cctagtgcc  
5460  
tgtcacctca cagccctct ctcttaaaca tgcaacaggc acccaccat gtgggtccag  
5520  
gtatggggag ccagagacct agatcctctg tgggtgcctga gcaggttggg gtggggagcc  
5580  
agctctcaag ggaaagatgg agagcctaga ggagtcttcc tggggcagca gccagtga  
5640  
ggacagagat gaccaaagag aggtccctg gccctgccag gggatatgaca gcagcaactg  
5700  
gttcacacaa ccaggaaaga aaacaagaaa gaggaattca aggagaaata ccatgggtgag  
5760  
taggggaggg ggctgtctac tctaccctct acaaagcatc atgcccgaat agcagctgag  
5820  
ataggggtgt cacgcctctc caccacaca gggccggtga gggaaagggg gaccagaag  
5880  
cccactgacc aaagcgagtg ggaccacca cataccaaca ccattctttg ggtccattcc  
5940  
tgtccaacca gggactcagg ccagggact gacaacagtg gcagcaccag gtcagaaacg  
6000  
tgggcacaga gaagcgtgac aggggcctga gccagtggg gcagagtgac tacacacctc  
6060  
caggggcctg ctgggtaaac gaagcctctg ggaagtcagg aactgggtgc ctggcccagc  
6120  
agaggggtgag cagggagaag gagcaggtct ggaggggagg ccctagccac tcaaggggtg  
6180  
cagatctact ttgactttct cccgcagct cagcattcca atgggtggga agaagcctcc  
6240  
agaaggaaca acagcatcct tcttcccaat gatcttgcca ttccgagtga agaaaaccac  
6300  
caccttcctg ccctcatgct ccggtctat ctcttccca tctcttctc ctctctctc  
6360  
ctctcttcc tcttccctt cctgggtgcag gtacatgaca ttccgcacgt tccggacggc  
6420  
ccgggcagtc ggagacagga tcaactgtgc acaactgtca tcaactgtcc cctcactgtc  
6480  
caaatgtag tcccggggga acatgattcc acagcccatg atgtcccctt tgtaacagcg  
6540  
tggcccaaag gggccccca caccactgcc atggaagatc tccccatcgt ctgcatgata  
6600

agccacagac cctctgctcc agccaggggtg cctgttcttg ggatagtcct tccgtgccag  
 6660  
 ccccagggcg atgtagcatt tctctccagg gtccacgata tccacctcga agtagtggct  
 6720  
 gcgggtgctg agtgggtgcc gggcctgggc cagccccaca tccacgatgc ttttgcctt  
 6780  
 ccctaagtac tccagcagag tcccacagac tctgacatca tgtagccggc cccattcatc  
 6840  
 ctcgtagctg tccaccatca tga  
 6863

<210> 804

<211> 1400

<212> PRT

<213> Homo sapiens

<400> 804

Ala	Arg	Pro	Gly	Trp	Pro	Ser	Ala	His	Pro	Leu	Ser	Pro	Arg	Leu	Phe	1	5	10	15
Pro	Arg	Lys	Ala	Glu	Pro	His	Ser	Phe	Arg	Glu	Lys	Val	Phe	Arg	Lys	20	25	30	
Lys	Pro	Pro	Val	Cys	Ala	Val	Cys	Lys	Val	Thr	Ile	Asp	Gly	Thr	Gly	35	40	45	
Val	Ser	Cys	Arg	Val	Cys	Lys	Val	Ala	Thr	His	Arg	Lys	Cys	Glu	Ala	50	55	60	
Lys	Val	Thr	Ser	Ala	Cys	Gln	Ala	Leu	Pro	Pro	Val	Glu	Leu	Arg	Arg	65	70	75	80
Asn	Thr	Ala	Pro	Val	Arg	Arg	Ile	Glu	His	Leu	Gly	Ser	Thr	Lys	Ser	85	90	95	
Leu	Asn	His	Ser	Lys	Gln	Arg	Ser	Thr	Leu	Pro	Arg	Ser	Phe	Ser	Leu	100	105	110	
Asp	Pro	Leu	Met	Glu	Arg	Arg	Trp	Asp	Leu	Asp	Leu	Thr	Tyr	Val	Thr	115	120	125	
Glu	Arg	Ile	Leu	Ala	Ala	Ala	Phe	Pro	Ala	Arg	Pro	Asp	Glu	Gln	Arg	130	135	140	
His	Arg	Gly	His	Leu	Arg	Glu	Leu	Ala	His	Val	Leu	Gln	Ser	Lys	His	145	150	155	160
Arg	Asp	Lys	Tyr	Leu	Leu	Phe	Asn	Leu	Ser	Glu	Lys	Arg	His	Asp	Leu	165	170	175	
Thr	Arg	Leu	Asn	Pro	Lys	Val	Gln	Asp	Phe	Gly	Trp	Pro	Glu	Leu	His	180	185	190	
Ala	Pro	Pro	Leu	Asp	Lys	Leu	Cys	Ser	Ile	Cys	Lys	Ala	Met	Glu	Thr	195	200	205	
Trp	Leu	Ser	Ala	Asp	Pro	Gln	His	Val	Val	Val	Leu	Tyr	Cys	Lys	Gly	210	215	220	
Asn	Lys	Gly	Lys	Leu	Gly	Val	Ile	Val	Ser	Ala	Tyr	Met	His	Tyr	Ser	225	230	235	240
Lys	Ile	Ser	Ala	Gly	Ala	Asp	Gln	Ala	Leu	Ala	Thr	Leu	Thr	Met	Arg	245	250	255	
Lys	Phe	Cys	Glu	Asp	Lys	Val	Ala	Thr	Glu	Leu	Gln	Pro	Ser	Gln	Arg	260	265	270	
Arg	Tyr	Ile	Ser	Tyr	Phe	Ser	Gly	Leu	Leu	Ser	Gly	Ser	Ile	Arg	Met	275	280	285	
Asn	Ser	Ser	Pro	Leu	Phe	Leu	His	Tyr	Val	Leu	Ile	Pro	Met	Leu	Pro				

290	295	300
Ala Phe Glu Pro Gly Thr	Gly Phe Gln Pro Phe Leu Lys Ile Tyr Gln	
305	310	315
Ser Met Gln Leu Val Tyr Thr	Ser Gly Val Tyr His Ile Ala Gly Pro	320
	325	330
Gly Pro Gln Gln Leu Cys Ile	Ser Leu Glu Pro Ala Leu Leu Leu Lys	335
	340	345
Gly Asp Val Met Val Thr Cys Tyr	His Lys Gly Gly Arg Gly Thr Asp	350
	355	360
Arg Thr Leu Val Phe Arg Val	Gln Phe His Thr Cys Thr Ile His Gly	365
	370	375
Pro Gln Leu Thr Phe Pro Lys Asp	Gln Leu Asp Glu Ala Trp Thr Asp	380
	385	390
Glu Arg Phe Pro Phe Gln Ala Ser	Val Glu Phe Val Phe Ser Ser Ser	395
	405	410
Pro Glu Lys Ile Lys Gly Ser Thr	Pro Arg Asn Asp Pro Ser Val Ser	415
	420	425
Val Asp Tyr Asn Thr Thr Glu Pro	Ala Val Arg Trp Asp Ser Tyr Glu	430
	435	440
Asn Phe Asn Gln His His Glu Asp	Ser Val Asp Gly Ser Leu Thr His	445
	450	455
Thr Arg Gly Pro Leu Asp Gly Ser	Pro Tyr Ala Gln Val Gln Arg Pro	460
	465	470
Pro Arg Gln Thr Pro Pro Ala Pro	Ser Pro Glu Pro Pro Pro Pro Pro	475
	485	490
Met Leu Ser Val Ser Ser Asp Ser	Gly His Ser Ser Thr Leu Thr Thr	495
	500	505
Glu Pro Ala Ala Glu Ser Pro Gly	Arg Pro Pro Pro Thr Ala Ala Glu	510
	515	520
Arg Gln Glu Leu Asp Arg Leu Leu	Gly Gly Cys Gly Val Ala Ser Gly	525
	530	535
Gly Arg Gly Ala Gly Arg Glu Thr	Ala Ile Leu Asp Asp Glu Glu Gln	540
	545	550
Pro Thr Val Gly Gly Gly Pro His	Leu Gly Val Tyr Pro Gly His Arg	555
	565	570
Pro Gly Leu Ser Arg His Cys Ser	Cys Arg Gln Gly Tyr Arg Glu Pro	575
	580	585
Cys Gly Val Pro Asn Gly Gly Tyr	Tyr Arg Pro Glu Gly Thr Leu Glu	590
	595	600
Arg Arg Arg Leu Ala Tyr Gly Gly	Tyr Glu Gly Ser Pro Gln Gly Tyr	605
	610	615
Ala Glu Ala Ser Met Glu Lys Arg	Arg Leu Cys Arg Ser Leu Ser Glu	620
	625	630
Gly Leu Tyr Pro Tyr Pro Pro Glu	Met Gly Lys Pro Ala Thr Gly Asp	635
	645	650
Phe Gly Tyr Arg Ala Pro Gly Tyr	Arg Glu Val Val Ile Leu Glu Asp	655
	660	665
Pro Gly Leu Pro Ala Leu Tyr Pro	Cys Pro Ala Cys Glu Glu Lys Leu	670
	675	680
Ala Leu Pro Thr Ala Ala Leu Tyr	Gly Leu Arg Leu Glu Arg Glu Ala	685
	690	695
Gly Glu Gly Trp Ala Ser Glu Ala	Gly Lys Pro Leu Leu His Pro Val	700
	705	710
Arg Pro Gly His Pro Leu Pro Leu	Leu Leu Pro Ala Cys Gly His His	715
	720	

725 730 735  
His Ala Pro Met Pro Asp Tyr Ser Cys Leu Lys Pro Pro Lys Ala Gly  
740 745 750  
Glu Glu Gly His Glu Gly Cys Ser Tyr Thr Met Cys Pro Glu Gly Arg  
755 760 765  
Tyr Gly His Pro Gly Tyr Pro Ala Leu Val Thr Tyr Ser Tyr Gly Gly  
770 775 780  
Ala Val Pro Ser Tyr Cys Pro Ala Tyr Gly Arg Val Pro His Ser Cys  
785 790 795 800  
Gly Ser Pro Gly Glu Gly Arg Gly Tyr Pro Ser Pro Gly Ala His Ser  
805 810 815  
Pro Arg Ala Gly Ser Ile Ser Pro Gly Ser Pro Pro Tyr Pro Gln Ser  
820 825 830  
Arg Lys Leu Ser Tyr Glu Ile Pro Thr Glu Glu Gly Gly Asp Arg Tyr  
835 840 845  
Pro Leu Pro Gly His Leu Ala Ser Ala Gly Pro Leu Ala Ser Ala Glu  
850 855 860  
Ser Leu Glu Pro Val Ser Trp Arg Glu Gly Pro Ser Gly His Ser Thr  
865 870 875 880  
Leu Pro Arg Ser Pro Arg Asp Ala Pro Cys Ser Ala Ser Ser Glu Leu  
885 890 895  
Ser Gly Pro Ser Thr Pro Leu His Thr Ser Ser Pro Val Gln Gly Lys  
900 905 910  
Glu Ser Thr Arg Arg Gln Asp Thr Arg Ser Pro Thr Ser Ala Pro Thr  
915 920 925  
Gln Arg Leu Ser Pro Gly Glu Ala Leu Pro Pro Val Ser Gln Ala Gly  
930 935 940  
Thr Gly Lys Ala Pro Glu Leu Pro Ser Gly Ser Gly Pro Glu Pro Leu  
945 950 955 960  
Ala Pro Ser Pro Val Ser Pro Thr Phe Pro Pro Ser Ser Pro Ser Asp  
965 970 975  
Trp Pro Gln Glu Arg Ser Pro Gly Gly His Ser Asp Gly Ala Ser Pro  
980 985 990  
Arg Ser Pro Val Pro Thr Thr Leu Pro Gly Leu Arg His Ala Pro Trp  
995 1000 1005  
Gln Gly Pro Arg Gly Pro Pro Asp Ser Pro Asp Gly Ser Pro Leu Thr  
1010 1015 1020  
Pro Val Pro Ser Gln Met Pro Trp Leu Val Ala Ser Pro Glu Pro Pro  
1025 1030 1035 1040  
Gln Ser Ser Pro Thr Pro Ala Phe Pro Leu Ala Ala Ser Tyr Asp Thr  
1045 1050 1055  
Asn Gly Leu Ser Gln Pro Pro Leu Pro Glu Lys Arg His Leu Pro Gly  
1060 1065 1070  
Pro Gly Gln Gln Pro Gly Pro Trp Gly Pro Glu Gln Ala Ser Ser Pro  
1075 1080 1085  
Ala Arg Gly Ile Ser His His Val Thr Phe Ala Pro Leu Leu Ser Asp  
1090 1095 1100  
Asn Val Pro Gln Thr Pro Glu Pro Pro Thr Gln Glu Ser Gln Ser Asn  
1105 1110 1115 1120  
Val Lys Phe Val Gln Asp Thr Ser Lys Phe Trp Tyr Lys Pro His Leu  
1125 1130 1135  
Ser Arg Asp Gln Ala Ile Ala Leu Leu Lys Asp Lys Asp Pro Gly Ala  
1140 1145 1150  
Phe Leu Ile Arg Asp Ser His Ser Phe Gln Gly Ala Tyr Gly Leu Ala

1155 1160 1165  
 Leu Lys Val Ala Thr Pro Pro Pro Ser Ala Gln Pro Trp Lys Gly Asp  
 1170 1175 1180  
 Pro Val Glu Gln Leu Val Arg His Phe Leu Ile Glu Thr Gly Pro Lys  
 1185 1190 1195 1200  
 Gly Val Lys Ile Lys Gly Cys Pro Ser Glu Pro Tyr Phe Gly Ser Leu  
 1205 1210 1215  
 Ser Ala Leu Val Ser Gln His Ser Ile Ser Pro Ile Ser Leu Pro Cys  
 1220 1225 1230  
 Cys Leu Arg Ile Pro Ser Lys Asp Pro Leu Glu Glu Thr Pro Glu Ala  
 1235 1240 1245  
 Pro Val Pro Thr Asn Met Ser Thr Ala Ala Asp Leu Leu Arg Gln Gly  
 1250 1255 1260  
 Ala Ala Cys Ser Val Leu Tyr Leu Thr Ser Val Glu Thr Glu Ser Leu  
 1265 1270 1275 1280  
 Thr Gly Pro Gln Ala Val Ala Arg Ala Ser Ser Ala Ala Leu Ser Cys  
 1285 1290 1295  
 Ser Pro Arg Pro Thr Pro Ala Val Val His Phe Lys Val Ser Ala Gln  
 1300 1305 1310  
 Gly Ile Thr Leu Thr Asp Asn Gln Arg Lys Leu Phe Phe Arg Arg His  
 1315 1320 1325  
 Tyr Pro Val Asn Ser Ile Thr Phe Ser Ser Thr Asp Pro Gln Asp Arg  
 1330 1335 1340  
 Arg Trp Thr Asn Pro Asp Gly Thr Thr Ser Lys Ile Phe Gly Phe Val  
 1345 1350 1355 1360  
 Ala Lys Lys Pro Gly Ser Pro Trp Glu Asn Val Cys His Leu Phe Ala  
 1365 1370 1375  
 Glu Leu Asp Pro Asp Gln Pro Ala Gly Ala Ile Val Thr Phe Ile Thr  
 1380 1385 1390  
 Lys Val Leu Leu Gly Gln Arg Lys  
 1395 1400

&lt;210&gt; 805

&lt;211&gt; 550

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 805

cccgagagag gcttcaatcc aatgagctgc cagctgaact tactcaacaa gcaaggaccc  
 60  
 atgggcagac ccaggaaatc tcgccaagta cccattcat gggaggccag cagcacaatt  
 120  
 agtcatccat ttacttatca agctgttact gtgtgtgcaa gaagcgccag agagatgata  
 180  
 tcaaggagct cttaccatgg ctggcataga gcggctgatg agtaagttcc gtctgcacaa  
 240  
 agagtcccta agcattcatt cttggctgac attcttggtc cagggggtct ccatggcctt  
 300  
 gttcccctcc tcgggtcacc agttcaggtc gagggggcct atgcttgga gggccacacc  
 360  
 aatggacctt gccaggacac tcagtcacag gtttcacacc caaagagaag acagcccaac  
 420  
 ccagaccctc aaaagagagc acctggggga agggagcgtg gaaaccagga ctcagaaaga  
 480

cacaagagaa aaagaagctg tacactgggg aggcttccgg ggtacctgtg cctgccatgt  
 540  
 ctctgaaggc  
 550

<210> 806  
 <211> 118  
 <212> PRT  
 <213> Homo sapiens

<400> 806  
 Met Ala Gly Ile Glu Arg Leu Met Ser Lys Phe Arg Leu His Lys Glu  
 1 5 10 15  
 Ser Leu Ser Ile His Ser Trp Leu Thr Phe Leu Ala Gln Gly Val Ser  
 20 25 30  
 Met Ala Leu Phe Pro Ser Ser Gly His Gln Phe Arg Ser Arg Gly Pro  
 35 40 45  
 Met Leu Gly Arg Ala Thr Pro Met Asp Leu Ala Arg Thr Leu Ser His  
 50 55 60  
 Arg Phe His Thr Gln Arg Glu Asp Ser Pro Thr Gln Thr Leu Lys Arg  
 65 70 75 80  
 Glu His Leu Gly Glu Gly Ser Val Glu Thr Arg Thr Gln Lys Asp Thr  
 85 90 95  
 Arg Glu Lys Glu Ala Val His Trp Gly Gly Phe Arg Gly Thr Cys Ala  
 100 105 110  
 Cys His Val Ser Glu Gly  
 115

<210> 807  
 <211> 287  
 <212> DNA  
 <213> Homo sapiens

<400> 807  
 acgcgtcgat ggcggttgcc ctgcctcact ggcaagacgc gaaatttctt gccatgattt  
 60  
 cccgaggtgg gagagcgcgc ggcattggcga ccgtaaact atcggtgtcc gatgcgatga  
 120  
 ccgagtgggt cgaagctcag accgggacag gccgctatac cagcgcgagc gattatatct  
 180  
 gcgccctgat tcgccaggac caggagcgaa gcgacggcct caggcagctt caaacgttga  
 240  
 tcaccgaggg gtccgacagc ggcattcagcg cctcgtcgct tgatgac  
 287

<210> 808  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

<400> 808  
 Met Ala Val Ala Leu Pro His Trp Gln Asp Ala Lys Phe Leu Ala Met  
 1 5 10 15  
 Ile Ser Arg Gly Gly Arg Ala Arg Gly Met Ala Thr Val Asn Val Ser

```

          20          25          30
Leu Ser Asp Ala Met Thr Glu Trp Val Glu Ala Gln Thr Gly Thr Gly
          35          40          45
Arg Tyr Thr Ser Ala Ser Asp Tyr Ile Cys Ala Leu Ile Arg Gln Asp
          50          55          60
Gln Glu Arg Ser Asp Gly Leu Arg Gln Leu Gln Thr Leu Ile Thr Glu
65          70          75          80
Gly Phe Asp Ser Gly Ile Ser Ala Ser Ser Leu Asp Asp
          85          90

```

<210> 809  
 <211> 405  
 <212> DNA  
 <213> Homo sapiens

<400> 809  
 nngggggggg gggggggggg ggtttttttc ccccaaaga aaaaaaagg gggggggggg  
 60  
 gggccccccc cccccccccc ctttttttc cccggggggg tttattccca gggccaacag  
 120  
 gacgcgtggt cgcgtcaa at ggagagacga tcggtgccgc ccttgcccca cgatcctgat  
 180  
 ggccccgaga ttcctgacga tgtcaccacc ctgcccac aggtaatggg tctgccacgt  
 240  
 cacctgggta tccactcagc tggaatggtg ctgacgcgag aaccagtagg acgcatctgc  
 300  
 cccattgagc cggctcgaat gtttggtcgc acggggctgc agtgggacaa anaaaactgt  
 360  
 gcctggatgg gggtggggaa gtttgatctg cttgggttgg ggatg  
 405

<210> 810  
 <211> 135  
 <212> PRT  
 <213> Homo sapiens

<400> 810  
 Xaa Gly Gly Gly Gly Gly Gly Val Phe Phe Pro Pro Lys Lys Lys Lys  
 1 5 10 15  
 Gly Gly Gly Gly Gly Pro Pro Pro Pro Pro Pro Leu Phe Phe Pro Arg  
 20 25 30  
 Gly Val Tyr Ser Gln Gly Gln Gln Asp Ala Trp Ser Arg Gln Met Glu  
 35 40 45  
 Arg Arg Ser Val Pro Pro Leu Pro His Asp Pro Asp Gly Pro Glu Ile  
 50 55 60  
 Pro Asp Asp Val Thr Thr Leu Ala Gln Gln Val Met Gly Leu Pro Arg  
 65 70 75 80  
 His Leu Gly Ile His Ser Ala Gly Met Val Leu Thr Arg Glu Pro Val  
 85 90 95  
 Gly Arg Ile Cys Pro Ile Glu Pro Ala Arg Met Phe Gly Arg Thr Gly  
 100 105 110  
 Leu Gln Trp Asp Lys Xaa Asn Cys Ala Trp Met Gly Leu Gly Lys Phe  
 115 120 125  
 Asp Leu Leu Gly Leu Gly Met



130

135

<210> 811  
<211> 642  
<212> DNA  
<213> Homo sapiens

<400> 811  
acgcgtgaag gggcagtgat aggcgcgcac catttgagcc cccagtgtga tgaatgtaag  
60  
cagtgccaat gactgccaat ggcaaagaag agctccaacc aaacaccagg tgcttcatgg  
120  
tggtgacaca ttaacaacac ccgggaagca gtactgccaa cacctagata tgagaaaaag  
180  
aaaacaggca cttaaagcga ggctaaccga ctttcaggaa tgataaaggg cagaggaccc  
240  
tgtcacctct acccctgcta ctaaaggcgt ggcccacaga gcagcagcac cagcagcaca  
300  
taaaatgggg ttaaataatga caggaaaaac aaggtagacag ggaaatgggg tgaagatcaa  
360  
gttcgtggta ngtctttctt tcttagaggc tttgggcctg agctcttgga gaaagctctc  
420  
caacacctca gggtagtgct gttccctgc cctgtgggga tgctcttctg acgggtggct  
480  
gactggctcc cactttcttc cgtattgttg tcttgtctct tccctcaca ccatcaaggc  
540  
tctttccctt aattctataa gacagtacct ctggcttaga aattatatgc cctcctttaa  
600  
aaaaacgaaa tgctagagga catagaactt gaggaaaaat tt  
642

<210> 812  
<211> 106  
<212> PRT  
<213> Homo sapiens

<400> 812  
Met Val Val Arg Glu Glu Thr Arg Gln Gln Tyr Gly Gly Lys Trp Glu  
1 5 10 15  
Pro Val Ser His Pro Tyr Lys Glu His Pro His Arg Ala Gly Glu Gln  
20 25 30  
Ala His Pro Glu Val Leu Glu Ser Phe Leu Gln Glu Leu Arg Pro Lys  
35 40 45  
Ala Ser Arg Lys Glu Arg Xaa Thr Thr Asn Leu Ile Phe Thr Pro Phe  
50 55 60  
Pro Cys His Leu Val Phe Pro Val Ile Phe Asn Pro Ile Leu Cys Ala  
65 70 75 80  
Ala Gly Ala Ala Ala Leu Trp Ala Thr Pro Leu Val Ala Gly Val Glu  
85 90 95  
Val Thr Gly Ser Ser Ala Leu Tyr His Ser  
100 105

<210> 813  
<211> 558

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 813

```

ccccggcgat agtcgcgtgg ggtcatggcg gatgaggggt taagagcgcg tttactgcgg
60
cgcccgaactc cgatcagccg ttcggaaagg cgacgccgaa gatcatgaca ttctcggccg
120
gttcgctgac cagcaccggg ccgcccggct gggccgggaa accgtggaac aagggaagcg
180
ggggcggcgc gcgggggtgac gccttcggcc ccctcgcctt cggtcagcgt gcggcgcaat
240
tcggggtcga ggatgatccg cggcccttcg atcttgacca cgatctccag ttgcccgcca
300
ttgtcttcgc cgccgacatc cagcgtgccg ccgcgcacca gcgcctcgct ggcgatcagg
360
gcgaggttca gcatcacctt cagcgcggac ttgggcagcg tctccgtttc caccaccag
420
ttgaattgcg tgcgcttatt gtcggcaacc agcccctcgt tcgcgggtttt cgcttcgcgc
480
gcgtcgacct gttcgccgaa cccgccggcg gcgcagaagg cgaggcgga gaatttgagc
540
ttgttggcgg atacgcgt
558

```

&lt;210&gt; 814

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 814

```

Met Thr Phe Ser Ala Gly Ser Leu Thr Ser Thr Gly Pro Pro Gly Trp
1      5      10      15
Ala Gly Lys Pro Trp Asn Lys Gly Ser Gly Gly Gly Ala Arg Gly Asp
20     25     30
Ala Phe Gly Pro Leu Ala Phe Gly Gln Arg Ala Ala Gln Phe Gly Val
35     40     45
Glu Asp Asp Pro Arg Pro Phe Asp Leu Asp His Asp Leu Gln Leu Pro
50     55     60
Ala Ile Val Phe Ala Ala Asp Ile Gln Arg Ala Ala Ala His Gln Arg
65     70     75     80
Leu Ala Gly Asp Gln Gly Glu Val Gln His His Leu Gln Arg Gly Leu
85     90     95
Gly Gln Arg Leu Arg Phe His Pro Pro Val Glu Leu Arg Ala Leu Ile
100    105    110
Val Gly Asn Gln Pro Leu Val Arg Gly Phe Arg Phe Ala Arg Val Asp
115    120    125
Leu Phe Ala Glu Pro Ala Gly Gly Ala Glu Gly Glu Ala Glu Glu Phe
130    135    140
Glu Leu Val Gly Gly Tyr Ala
145    150

```

&lt;210&gt; 815

&lt;211&gt; 315



<210> 818  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 818  
 Glu Phe Lys Glu Lys Tyr Leu Pro Arg Pro Tyr Val Ile Asn Leu Met  
 1 5 10 15  
 Asp Glu Leu Thr Leu Lys Gly Ile Thr Gln Tyr Tyr Ala Phe Val Glu  
 20 25 30  
 Glu Gly Gln Lys Val His Cys Leu Asn Thr Leu Phe Ser Lys Leu Gln  
 35 40 45  
 Ile Asn Gln Ser Ile Ile Phe Cys Asn Ser Val Asn Ser Val Glu Leu  
 50 55 60  
 Leu Ala Lys Lys Ile Thr Glu Leu Gly Tyr Ser Cys Phe Tyr Ile His  
 65 70 75 80  
 Ala Lys Met Leu Gln Asp His Arg Asn Arg Val Phe His Asp Cys Arg  
 85 90 95  
 Asn Gly Ala Cys Arg Asn Leu Val Cys Thr Asp  
 100 105

<210> 819  
 <211> 3422  
 <212> DNA  
 <213> Homo sapiens

<400> 819  
 atgaacagta agaaactgtc ttctactgac tgtttcaaaa ccgaggcctt cacatccccg  
 60  
 gaggccctgc agcctggggg gactgccctg gcgcctaaga agaggagccg gaaaggccgg  
 120  
 gcagggggccc atggactctc caaaggcccc ctggagaagc ggccctatct tggccccggt  
 180  
 ctgcccctga ctccccgaga caggggccagt ggcacacaag gggccagtga ggacaactct  
 240  
 ggtggaggag gcaagaagcc aaagatggag gagctgggccc tggcctccca cccccggag  
 300  
 ggcaggccct gccagcccca gacaaggcca cagaaacagc caggccacac caactacagc  
 360  
 agctattcca agcggaagcg cctcactcgg ggccgggcca agaacaccac ctcttcaccc  
 420  
 tgtaaggggc gtgccaagcg acgacgacag cagcaggtgc tgcccctgga tcccgcagag  
 480  
 cctgaaatcc gcctcaagta catttcctct tgcaagcggc tgaggtcaga cagccggacc  
 540  
 cccgccttct cacccttcgt gcgggtggag aagcgagacg cgttcaccac catatgcact  
 600  
 gttgtcaact cccctggaga tgcgccaag cccacagga agccttcctc ctctgcctcc  
 660  
 tcttcctcat cctcgtcctc gttctccttg gatgcagccg gggcctccct ggccacactc  
 720  
 cctggaggct ccatactgca gccgcggccc tccttgccc cctcctccac gatgcacttg  
 780

gggcctgtgg ttccaaggc cctgagtacc tcttgccctg ttgctgcct ctgccaaaac  
840  
ccggccaact tcaaggacct tggggacctc tgtgggccct actaccctga aactgcctc  
900  
cccaaaaaga agccaaaact caaggagaag gtgcggccag aaggcacctg tgaggaggcc  
960  
tcgctgccgc ttgagagaac actcaaaggt cccgagtgtg cagctgccgc cactgccggg  
1020  
aagcccccca ggctgacgg cccagctgac ccggccaagc agggcccact gcgcaccagt  
1080  
gcccggggcc tgtcccgag gctgcagagc tgctactgct gtgatggccg ggaggatggg  
1140  
ggcgaggagg cagccccagc cgacaagggt cgcaaactg agtgcagcaa ggaggctccg  
1200  
gcagagcccg gcggggaggc ccaggagcac tgggtgcatg aggcctgtgc cgtgtggacc  
1260  
ggcggcgtct acctgggtggc cgggaagctc tttgggctgc aggaggccat gaagggtggc  
1320  
gtggacatga tgtgttccag ctgccaagaa gccggggcca ccatcggtg ctgccacaaa  
1380  
ggatgcctcc acacctacca ctaccctgtg gccagcgatg caggttgcat attcatcgaa  
1440  
gagaactttt ctttgaaatg tcccaaact aagaggctgc cgtagtaatc caccccaacg  
1500  
gccggaggag ccgccggagc ccgcctgccc gcccgccgcc gaaggagagg agccgcctgc  
1560  
gcagcccccg ggcttttgag ctgctcccag cgctgggtcca gagccgatcc ttgatccggg  
1620  
tcccggatcg tggatccggc cgcctagggc tcagacttgc ggccccgggt tgggagga  
1680  
acccttccg gagccgcctg ctcccggaac cggacggcac agggcgttct tgcccacccc  
1740  
aggggccagg cttgcggagg gggagcccg gcgagcgcca gactccccgg ggcgtcagc  
1800  
ctccggcgag ggtgggagac ggctttgtcc tggggacact tccctcttg aatctcaaga  
1860  
cgactggca cacattccac gtgggtgctg ccgccacccc agtcggtcgt ggcgtgcagc  
1920  
tgggagccct gggcttgggg gtgggggtcg aaacagtact ggaagaggcg gagggcggct  
1980  
cctagctccg tggactaggc gggggagaaa ggaagccttt ctgagagcgg gctaggccgg  
2040  
cactggagag gccggagcct ttggaacaaa ccgtgcggaa cgcgtccagg ggccttcccg  
2100  
cccagccttt gccagatctc tcgtgcgggt cgggcaaagc cggggtagac ctgggctatg  
2160  
ctcagttagg ggttgcggga tccccgagtg tgggcgggac tgggacaccc tttggcctct  
2220  
gtttgtcccc ttccagtcc tccaccccac ccctggagcc cagcctggga gcgcaaaacc  
2280  
caagaagcgg ccagaacgca cctccggctc cggcggacgc gcgaccgttg tgcaccacca  
2340  
gggaccgccg cgcctactct gcacgggagc agggacagcg ctagatttcg tgtacaaaac  
2400

ctgtgtaccc ctctatatat atgttacata gaatgtatat atgttgggaa catgctcgct  
 2460  
 tctcccgtgt gtcgcccgcg tgcgtcgtgc gcccgcaaca gagccccaac cgggcctttg  
 2520  
 ccgggtaagg ggctaccgcg acgccacttg tccacgcagc caccaccggc ccgggccagt  
 2580  
 ccctgccagt ccgtccgcct gtccgtccgt gtccctcagct ctgtccacgc ttcgataggc  
 2640  
 ctgacgcagc cccagccca gggccgcctt agcaacttcc tgtacatatg actgtaaaat  
 2700  
 ggtaaacgtg tgtattatat ctggcctcgt tatatagtgt atatatatgt atacatatac  
 2760  
 atatataaa tatatatgaa gactgtaaat gttaagacga ctagtgttct tattagtata  
 2820  
 ttgcttcaca ctgaagattg tgtgtatcga gctgtttcta aaagatgttt attttcctta  
 2880  
 agagtaaaaa acagtcattg cattcagaaa aaaaaaaaaa aagtcaataa agatacaacg  
 2940  
 attgttttgg aaaatctgca gcccggtgat tccgaccaga ttcagctggg agccggggcca  
 3000  
 ggcttttaggt tggggaatgg gaatgaaggg aggggctggg ggggggggca tgaatggagt  
 3060  
 caggagtcg gcctttcaca gaacaggaaa cctccccgc cctgtgccc cctctccagt  
 3120  
 gtggcggcag gtcgggaggg aggaggcttc tttgctgtga aatgaccagg ggccgggatg  
 3180  
 ggggaggtga gacgtgccag acttcttgca gggagaccca agctgtagct cctgtcacac  
 3240  
 aacaggtcct ggaagtcagt ccattctccc gtgccacca gggaccttgt gtccggaggg  
 3300  
 ggaggggaag cctttgccta ggtgctgggg gagggcccaa gcactctcac tagtcagcac  
 3360  
 atccatcagc tgaagacaca aaaccagat tataaataat ttcattttta attctctgta  
 3420  
 ca  
 3422

&lt;210&gt; 820

&lt;211&gt; 494

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 820

Met	Asn	Ser	Lys	Lys	Leu	Ser	Ser	Thr	Asp	Cys	Phe	Lys	Thr	Glu	Ala
1				5					10					15	
Phe	Thr	Ser	Pro	Glu	Ala	Leu	Gln	Pro	Gly	Gly	Thr	Ala	Leu	Ala	Pro
			20					25					30		
Lys	Lys	Arg	Ser	Arg	Lys	Gly	Arg	Ala	Gly	Ala	His	Gly	Leu	Ser	Lys
		35					40					45			
Gly	Pro	Leu	Glu	Lys	Arg	Pro	Tyr	Leu	Gly	Pro	Ala	Leu	Pro	Leu	Thr
	50					55					60				
Pro	Arg	Asp	Arg	Ala	Ser	Gly	Thr	Gln	Gly	Ala	Ser	Glu	Asp	Asn	Ser
65					70					75				80	
Gly	Gly	Gly	Gly	Lys	Lys	Pro	Lys	Met	Glu	Glu	Leu	Gly	Leu	Ala	Ser

<210> 821  
<211> 420

<212> DNA

<213> Homo sapiens

<400> 821

```

acgcgtcccg tcacctgcgg tatggaccaa gtgagttgtg tgctcgacaa tgggttcgcc
60
gccatcatgg atgtgccggg tttcaactat cgcgcccatc gttacaccga agcctatcgg
120
cgtttgccgc aaaatgtggt gctaggttcg gaaacgacct cgacggtgag cagccgtggt
180
gtctacaagt ttcctgttgt gctgaagtcc gatgccatct atcccgacca tcagtcgtca
240
ggctacgaca cagagtattg ttcgtggtcg aacacccccg atgtcgattt cgccctcgcc
300
gaagactatc cctggacgat ggggcagttt gtctggacgg gcttcgacta cctcggtgaa
360
ccttcgcctt acgacaccga tgcctggccc tctcagcctt ccctcttcgg cattgtcgac
420

```

<210> 822

<211> 133

<212> PRT

<213> Homo sapiens

<400> 822

```

Met Asp Gln Val Ser Cys Val Leu Asp Asn Gly Phe Ala Ala Ile Met
 1          5          10          15
Asp Val Pro Gly Phe Asn Tyr Arg Ala His Arg Tyr Thr Glu Ala Tyr
          20          25          30
Arg Arg Leu Pro Gln Asn Val Val Leu Gly Ser Glu Thr Thr Ser Thr
          35          40          45
Val Ser Ser Arg Gly Val Tyr Lys Phe Pro Val Val Leu Lys Ser Asp
          50          55          60
Ala Ile Tyr Pro Asp His Gln Ser Ser Gly Tyr Asp Thr Glu Tyr Cys
65          70          75          80
Ser Trp Ser Asn Thr Pro Asp Val Asp Phe Ala Leu Ala Glu Asp Tyr
          85          90          95
Pro Trp Thr Met Gly Gln Phe Val Trp Thr Gly Phe Asp Tyr Leu Gly
          100         105         110
Glu Pro Ser Pro Tyr Asp Thr Asp Ala Trp Pro Ser His Ala Ser Leu
          115         120         125
Phe Gly Ile Val Asp
          130

```

<210> 823

<211> 550

<212> DNA

<213> Homo sapiens

<400> 823

```

tctagattct tgggcagccg agcccctctt gaattcctca gcctaccatc atgatcaaca
60
cctcccatgt tccgtccatg aatgaccgca ctgacagcac tggagagatt taatgggtca
120

```



ccaattgagg cagtgaaggc actcatggca ctcagagctg gaatggggct gatctgagtt  
 180  
 gtactgttga ctgcagtggg gatgacaacc tgcattcctt tgctggctgc atcgacaact  
 240  
 gctttgtaaa tggcatctac ggaagcatca cctggggccac ccacaacgag gccatccttc  
 300  
 acctgttgac caagagatgg gtcaatcctc gggtgcaact cacaagggtg atcttgaaaa  
 360  
 ggtggaagtg tagtgtttgg attctcagga agtgctgtga gcccaggctg agtgcttatt  
 420  
 cttttgttta ggagagctgc atcttcctgc attctcacct gaaagttctg aaacagacaa  
 480  
 gccatggggg tattgttagc tgggcaagga attgtggact gtccttgga cgcttgga  
 540  
 ttctggtacc  
 550

<210> 824  
 <211> 161  
 <212> PRT  
 <213> Homo sapiens

<400> 824  
 Met Ala Cys Leu Phe Gln Asn Phe Gln Val Arg Met Gln Glu Asp Ala  
 1 5 10 15  
 Ala Leu Leu Asn Lys Arg Ile Ser Thr Gln Pro Gly Leu Thr Ala Leu  
 20 25 30  
 Pro Glu Asn Pro Asn Thr Thr Leu Pro Pro Phe Gln Asp Thr Pro Cys  
 35 40 45  
 Glu Leu Gln Pro Arg Ile Asp Pro Ser Leu Gly Gln Gln Val Lys Asp  
 50 55 60  
 Gly Leu Val Val Gly Gly Pro Gly Asp Ala Ser Val Asp Ala Ile Tyr  
 65 70 75 80  
 Lys Ala Val Val Asp Ala Ala Ser Lys Gly Met Gln Val Val Ile Thr  
 85 90 95  
 Thr Ala Val Asn Ser Thr Thr Gln Ile Ser Pro Ile Pro Ala Leu Ser  
 100 105 110  
 Ala Met Ser Ala Phe Thr Ala Ser Ile Gly Asp Pro Leu Asn Leu Ser  
 115 120 125  
 Ser Ala Val Ser Ala Val Ile His Gly Arg Asn Met Gly Gly Val Asp  
 130 135 140  
 His Asp Gly Arg Leu Arg Asn Ser Arg Gly Ala Arg Leu Pro Lys Asn  
 145 150 155 160  
 Leu

<210> 825  
 <211> 327  
 <212> DNA  
 <213> Homo sapiens

<400> 825  
 gcgtttgcga ccggccgtaa cccgcagaat gcggcggtgt gttgcactga gggatattttg  
 60

cagttgctgg atgagcgcca gatgcgcggc gtgctcggcc acgagctgat gcacgtgtac  
 120  
 aaccgcgata tcctcacctc ttcgggtggcg gcgggtatcg cctccatcat cggtacgatt  
 180  
 gcgcagattc tttcgtttgg cgcgatgttc ggtggatcca accgcgatgg tgaacgttcc  
 240  
 aacccccctc ccatgttcgt ggttgctatg ctggctccca ttgctactca ggtcatccag  
 300  
 atggctatta gccgcacccg tgaattc  
 327

<210> 826  
 <211> 109  
 <212> PRT  
 <213> Homo sapiens

<400> 826  
 Ala Phe Ala Thr Gly Arg Asn Pro Gln Asn Ala Ala Val Cys Cys Thr  
 1 5 10 15  
 Glu Gly Ile Leu Gln Leu Leu Asp Glu Arg Glu Met Arg Gly Val Leu  
 20 25 30  
 Gly His Glu Leu Met His Val Tyr Asn Arg Asp Ile Leu Thr Ser Ser  
 35 40 45  
 Val Ala Ala Gly Ile Ala Ser Ile Ile Gly Thr Ile Ala Gln Ile Leu  
 50 55 60  
 Ser Phe Gly Ala Met Phe Gly Gly Ser Asn Arg Asp Gly Glu Arg Ser  
 65 70 75 80  
 Asn Pro Leu Ala Met Phe Val Val Ala Met Leu Ala Pro Ile Ala Thr  
 85 90 95  
 Gln Val Ile Gln Met Ala Ile Ser Arg Thr Arg Glu Phe  
 100 105

<210> 827  
 <211> 534  
 <212> DNA  
 <213> Homo sapiens

<400> 827  
 nacgcgtacg tcaatatgca tcgtccagtc gttatcgcaa cgccgaaatc gatgctgcgc  
 60  
 aacaagatgg cgacctcgga tcccgaagag ttcaccaccg gtaggtggcg tcctgttcta  
 120  
 cccgacccat cgatcaccga cccgacggcc gttacgagga ttatcttgtg ctctggcaag  
 180  
 gcgcgggtggg agctgggtcaa gcaacgtaag gccgccagtc ttgacggaca gctcgccatc  
 240  
 atcccgatgg agcgtctcta cccgctacca gtcgacgagt tggctgaggt ttttgcgcct  
 300  
 tacaccaacg tcacggatgt ccgctgggtc caagaagagc cagagaacca gggcgccctgg  
 360  
 tactacatgc tgaccacct gccccaggcc atgtcggaga agctgccagg attctttgat  
 420  
 gggttagtcg gcatcaccgc cccaccgtcc tcagctccgt cgggtgggaca gcacagcgtc  
 480

cacatccgtg aagagcagga gttactcgag aaggctatag cctgagcgac ctga  
534

<210> 828

<211> 174

<212> PRT

<213> Homo sapiens

<400> 828

Xaa	Ala	Tyr	Val	Asn	Met	His	Arg	Pro	Val	Val	Ile	Ala	Thr	Pro	Lys
1				5					10					15	
Ser	Met	Leu	Arg	Asn	Lys	Met	Ala	Thr	Ser	Asp	Pro	Glu	Glu	Phe	Thr
			20					25					30		
Thr	Gly	Arg	Trp	Arg	Pro	Val	Leu	Pro	Asp	Pro	Ser	Ile	Thr	Asp	Pro
		35				40						45			
Thr	Ala	Val	Thr	Arg	Ile	Ile	Leu	Cys	Ser	Gly	Lys	Ala	Arg	Trp	Glu
	50				55					60					
Leu	Val	Lys	Gln	Arg	Lys	Ala	Ala	Ser	Leu	Asp	Gly	Gln	Leu	Ala	Ile
65					70				75					80	
Ile	Pro	Met	Glu	Arg	Leu	Tyr	Pro	Leu	Pro	Val	Asp	Glu	Leu	Ala	Glu
			85					90					95		
Val	Phe	Ala	Pro	Tyr	Thr	Asn	Val	Thr	Asp	Val	Arg	Trp	Val	Gln	Glu
			100					105					110		
Glu	Pro	Glu	Asn	Gln	Gly	Ala	Trp	Tyr	Tyr	Met	Leu	Thr	His	Leu	Pro
		115					120					125			
Gln	Ala	Met	Ser	Glu	Lys	Leu	Pro	Gly	Phe	Phe	Asp	Gly	Leu	Val	Gly
	130					135					140				
Ile	Thr	Arg	Pro	Pro	Ser	Ala	Pro	Ser	Val	Gly	Gln	His	Ser	Val	
145					150				155					160	
His	Ile	Arg	Glu	Glu	Gln	Glu	Leu	Leu	Glu	Lys	Ala	Ile	Ala		
			165						170						

<210> 829

<211> 492

<212> DNA

<213> Homo sapiens

<400> 829

nagtggccgg gtggccggcg ggtgccagcc gccatggagg ccgtgccccg catgcccattg  
60  
atctggctgg acctgaagga ggccggtgac tttcacttcc agccagctgt gaagaagttt  
120  
gtcctgaaga attatggaga gaaccagaa gcctacaatg aagaactgaa gaagctggag  
180  
ttgctcagac agaattgctgt ccgtgtccca cgagactttg agggctgtag tgcctccgc  
240  
aagtacctcg gccagcttca ttacctgcag agtcgggtcc ccatgggctc gggccaggag  
300  
gccgctgtcc ctgtcacatg gacagagatc ttctcaggca agtctgtggc ccatgaggac  
360  
atcaagtacg agcaggcctg tattttctcc aacnttggag cgctgcactc catgctgggg  
420  
gccatggaca agcgggtgtc tgaggagggc atgaaggtct cctgtaccca tttccagtgc  
480

gcagccggcg cc  
492

<210> 830  
<211> 164  
<212> PRT  
<213> Homo sapiens

<400> 830  
Xaa Trp Pro Gly Gly Arg Arg Val Pro Ala Ala Met Glu Ala Val Pro  
1 5 10 15  
Arg Met Pro Met Ile Trp Leu Asp Leu Lys Glu Ala Gly Asp Phe His  
20 25 30  
Phe Gln Pro Ala Val Lys Lys Phe Val Leu Lys Asn Tyr Gly Glu Asn  
35 40 45  
Pro Glu Ala Tyr Asn Glu Glu Leu Lys Lys Leu Glu Leu Leu Arg Gln  
50 55 60  
Asn Ala Val Arg Val Pro Arg Asp Phe Glu Gly Cys Ser Val Leu Arg  
65 70 75 80  
Lys Tyr Leu Gly Gln Leu His Tyr Leu Gln Ser Arg Val Pro Met Gly  
85 90 95  
Ser Gly Gln Glu Ala Ala Val Pro Val Thr Trp Thr Glu Ile Phe Ser  
100 105 110  
Gly Lys Ser Val Ala His Glu Asp Ile Lys Tyr Glu Gln Ala Cys Ile  
115 120 125  
Phe Ser Asn Xaa Gly Ala Leu His Ser Met Leu Gly Ala Met Asp Lys  
130 135 140  
Arg Val Ser Glu Glu Gly Met Lys Val Ser Cys Thr His Phe Gln Cys  
145 150 155 160  
Ala Ala Gly Ala

<210> 831  
<211> 303  
<212> DNA  
<213> Homo sapiens

<400> 831  
gcgttgctgc ggcgtggcga gaccatgacg gcggagaatc agcgtgccaa tgtgcgcac  
60  
gccgcaaacc acatcaagga gggtgcggtc gatcacgagg tcgttgtagc ccatggtaat  
120  
ggccccccagg taggtctgtt ggctctgcaa tcgacagcct acgaggaagt cggtatctat  
180  
ccgctggatg tcctgggctc agagtcacag gccatgatcg gctacatgat cgagcaggaa  
240  
ctcggcaatg tgatgcctca ggatcagcag atcgtcacca tgatcacgat gacagtcgtc  
300  
gac  
303

<210> 832  
<211> 101  
<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 832

Ala Leu Leu Arg Arg Gly Glu Thr Met Thr Ala Glu Asn Gln Arg Ala  
 1 5 10 15  
 Asn Val Arg Ile Ala Ala Asn His Ile Lys Glu Val Ala Val Asp His  
 20 25 30  
 Glu Val Val Val Ala His Gly Asn Gly Pro Gln Val Gly Leu Leu Ala  
 35 40 45  
 Leu Gln Ser Thr Ala Tyr Glu Glu Val Gly Ile Tyr Pro Leu Asp Val  
 50 55 60  
 Leu Gly Ala Glu Ser Gln Ala Met Ile Gly Tyr Met Ile Glu Gln Glu  
 65 70 75 80  
 Leu Gly Asn Val Met Pro Gln Asp Gln Gln Ile Val Thr Met Ile Thr  
 85 90 95  
 Met Thr Val Val Asp  
 100

&lt;210&gt; 833

&lt;211&gt; 466

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 833

nngatccgcg cgatcgacga ggcgggtgcg tgatgttgac agcgaaaatg cgcagccggc  
 60  
 catttgacga gggctgaaaa cgtcttctac cggctctgctg tgccgcctgg tgtcagcaaa  
 120  
 cgacgccatg atcgtccagt gggatcgcgt ttgttctgctg gcgctggggg attcagttgc  
 180  
 ggattccacc aggccgggtg gcatgttgctg gcggcggttg agcacgacgt gtcggcgtct  
 240  
 ctgacctatg tcatgaatct cgctcggccc ggcgtcaaga ttcacatcga ccccgagcac  
 300  
 ccggagctgg gcccaagacc accgcgaacc aagaagaaga gcggcgggcg agtgccgttc  
 360  
 gatgcgcatg tcggaactgg gtggatcgcc agcgagcccc cgcacgatcc cggctgcgaa  
 420  
 cacttctacg tgtacgacgt caagaacctc agcggcgagc ggatcc  
 466

&lt;210&gt; 834

&lt;211&gt; 142

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 834

Gln Arg Lys Cys Ala Ala Gly His Leu Thr Arg Ala Glu Asn Val Phe  
 1 5 10 15  
 Tyr Arg Ser Ala Val Pro Pro Gly Val Ser Lys Arg Arg His Asp Arg  
 20 25 30  
 Pro Val Gly Ile Asp Leu Phe Cys Gly Ala Gly Gly Phe Ser Cys Gly  
 35 40 45  
 Phe His Gln Ala Gly Trp His Val Ala Ala Ala Val Glu His Asp Val

```

      50              55              60
Ser Ala Ser Leu Thr Tyr Val Met Asn Leu Ala Arg Pro Gly Val Lys
65              70              75              80
Ile His Ile Asp Pro Glu His Pro Glu Leu Gly Pro Arg Pro Pro Arg
      85              90              95
Thr Lys Lys Lys Ser Gly Gly Ala Val Pro Phe Asp Ala His Val Gly
      100             105             110
Thr Gly Trp Ile Ala Ser Glu Pro Ala Asp Asp Pro Gly Cys Glu His
      115             120             125
Phe Tyr Val Tyr Asp Val Lys Asn Leu Ser Gly Glu Arg Ile
      130             135             140

```

<210> 835  
 <211> 482  
 <212> DNA  
 <213> Homo sapiens

```

<400> 835
acgcgtgaag ggattttgat caccagaac aaccacctgt ctttttagat caagaagcag
60
aagctcagag caaagaacat cacaccacgt ccctcagtga ttgaagcagt gattgagtca
120
cagaataaat ctggaactca ggtcttctga tctttgctcc agatgttaga gacaaaacta
180
aaagtaaaat accaagtga atcaaagcat cagcattgag cccagaacat gaaaaagaac
240
ttcctggccc acttgagaaa ctgttaaacc ggacatacct ttggggactt cttcccttct
300
ctggaataag attgatgttt ccatgctgtg aaagacgatg atgttccttc tcccagattc
360
ctgctgtctt caaaaggcct agcaaaaacc actgctgctg ggtgcagttg agaaagggaa
420
tgaagaacaa tcccatggcc atgcaggcac tcctcccttc cacctctctg cccttcacgc
480
gt
482

```

<210> 836  
 <211> 120  
 <212> PRT  
 <213> Homo sapiens

```

<400> 836
Met Ala Met Gly Leu Phe Phe Ile Pro Phe Leu Asn Cys Thr Gln Gln
1              5              10              15
Gln Trp Phe Leu Leu Gly Leu Leu Lys Thr Ala Gly Ile Trp Glu Lys
      20              25              30
Glu His His Arg Leu Ser Gln His Gly Asn Ile Asn Leu Ile Pro Glu
      35              40              45
Lys Gly Arg Ser Pro Gln Arg Tyr Val Arg Phe Asn Ser Phe Ser Ser
      50              55              60
Gly Pro Gly Ser Ser Phe Ser Cys Ser Gly Leu Asn Arg Asp Ala Leu
65              70              75              80
Ile Ser Leu Gly Ile Leu Leu Leu Val Leu Ser Leu Thr Ser Gly Ala

```

```

<400> 838
Met Ala Pro Pro Gly Ser Glu Asp Gly Gly Ala Trp Arg Ser Ser Pro
1          5          10          15
Ser Tyr Pro Gly Glu Cys Trp Gly Ala Phe Leu Ser Arg Pro Ala Cys
20          25          30
Cys Pro Cys Trp Leu Ala Leu Pro Leu Pro Arg Gly Lys Val Gly Trp
35          40          45
Ser Pro Gln Gly Asn Ser Lys Gln Gly Ser Pro Trp Arg Pro Gln Val
50          55          60
Pro Gly Ile Ser Trp Arg Ser Asp Gly Pro Pro Arg Thr Pro Ser His
65          70          75          80
Gly Gly Ala Ala Arg Trp Glu Val Thr Gln Gln Pro Leu Leu Leu Gly
85          90          95
Glu Asp Phe Ser Pro Asn Ala Ser Ala Gly Gly Ile Ser Leu Ser Leu
100         105         110
Gln Val Gly Glu Ala Gly Val
115

```

<210> 839  
<211> 347  
<212> DNA  
<213> Homo sapiens

<400> 839  
acgcgtctcg tgttcgtgcg gcacggcagg acggcggttca atgtggaggg tcggctccag  
60  
ggccgtctcg acatgccggtt ggatgaggtg gggcgccgtc aggcactcac agtggctcaa  
120  
gtcatcgccg agatggaacc tgacgcgac atggcctctc cgctacaacg tgcgcgcgac  
180  
acagctcagg caatcggtgc ttgtgctgga ttgggcgtac agctggatga tcgactcatc  
240  
gagatcgatg tcggacgttg gtcgggacaa cgggctgcgg acctgcgtcg caacgatcct  
300  
gagtacgcag caagtgtggt cagccctatc gattaccggg tcggagn  
347

<210> 840  
<211> 115  
<212> PRT  
<213> Homo sapiens

<400> 840  
Thr Arg Leu Val Phe Val Arg His Gly Arg Thr Ala Phe Asn Val Glu  
1 5 10 15  
Gly Arg Leu Gln Gly Arg Leu Asp Met Pro Leu Asp Glu Val Gly Arg  
20 25 30  
Arg Gln Ala Leu Thr Val Ala Gln Val Ile Ala Glu Met Glu Pro Asp  
35 40 45  
Ala Ile Met Ala Ser Pro Leu Gln Arg Ala Arg Asp Thr Ala Gln Ala  
50 55 60  
Ile Gly Ala Cys Ala Gly Leu Gly Val Gln Leu Asp Asp Arg Leu Ile  
65 70 75 80  
Glu Ile Asp Val Gly Arg Trp Ser Gly Gln Arg Ala Ala Asp Leu Arg  
85 90 95  
Arg Asn Asp Pro Glu Tyr Ala Ala Ser Val Val Ser Pro Ile Asp Tyr  
100 105 110  
Arg Val Gly  
115

<210> 841  
<211> 351  
<212> DNA  
<213> Homo sapiens

<400> 841  
tccggaactc accccgacgc cgtcattatg gacgtcatga tgccgcgtct agatggcttg  
60  
gaagccaccc ggatgctgcg cagcaatggc aacgacgtcc cgatcctcgt cctcaccgcc  
120  
cgcgatgctg tcgacgatcg cgttgacggc ctcgacgctg gcgccgatga ctacatggtc  
180



aagcccttcg ccctcgacga actcctcgct cgcctacgcy ccctcactcg tcgttcccgt  
 240  
 cccgagccag agcaaaacga ggcccctgaa caactctcct tcgctgacct cacccttgat  
 300  
 ccaggcaccg gcgagatcac ccgcgggaac cgtcgcatca gtttgacgcy t  
 351

<210> 842  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 842  
 Ser Gly Thr His Pro Asp Ala Val Ile Met Asp Val Met Met Pro Arg  
 1 5 10 15  
 Leu Asp Gly Leu Glu Ala Thr Arg Met Leu Arg Ser Asn Gly Asn Asp  
 20 25 30  
 Val Pro Ile Leu Val Leu Thr Ala Arg Asp Ala Val Asp Asp Arg Val  
 35 40 45  
 Asp Gly Leu Asp Ala Gly Ala Asp Asp Tyr Met Val Lys Pro Phe Ala  
 50 55 60  
 Leu Asp Glu Leu Leu Ala Arg Leu Arg Ala Leu Thr Arg Arg Ser Arg  
 65 70 75 80  
 Pro Glu Pro Glu Gln Asn Glu Ala Pro Glu Gln Leu Ser Phe Ala Asp  
 85 90 95  
 Leu Thr Leu Asp Pro Gly Thr Arg Glu Ile Thr Arg Gly Asn Arg Arg  
 100 105 110  
 Ile Ser Leu Thr Arg  
 115

<210> 843  
 <211> 393  
 <212> DNA  
 <213> Homo sapiens

<400> 843  
 ctagcccagg ctctcgteca cgaggggctg cgcgctgtgg cctctggggc aaaccgggtc  
 60  
 ggccctcaagc gcggtatcga gaaggctgtc gacgccgttg tggaggagct ccgctctatc  
 120  
 tcgcgcgcca tcgacaccac ctccgacatg gccagcgttg ccaccatctc cagccgtgac  
 180  
 gagaccatcg gcgccctcat cgctgaggcc ttcgacaagg ttggttaagga cgggggttatc  
 240  
 accgtcgacg agtcgcagac cttcggcact gagcttgact tcaccgaggg catgcagttc  
 300  
 gacaaggggtt acctgtcgcc ctacatggtc accgaccagg ttcgcatgga ggctgtgatc  
 360  
 gaggatcctt acatcctcat tcaactcccgc aag  
 393

<210> 844  
 <211> 131  
 <212> PRT

<213> Homo sapiens

<400> 844

```

Leu Ala Gln Ala Leu Val His Glu Gly Leu Arg Ala Val Ala Ser Gly
 1           5           10           15
Ala Asn Pro Val Gly Leu Lys Arg Gly Ile Glu Lys Ala Val Asp Ala
          20           25           30
Val Val Glu Glu Leu Arg Ser Ile Ser Arg Ala Ile Asp Thr Thr Ser
          35           40           45
Asp Met Ala Ser Val Ala Thr Ile Ser Ser Arg Asp Glu Thr Ile Gly
          50           55           60
Ala Leu Ile Ala Glu Ala Phe Asp Lys Val Gly Lys Asp Gly Val Ile
65           70           75           80
Thr Val Asp Glu Ser Gln Thr Phe Gly Thr Glu Leu Asp Phe Thr Glu
          85           90           95
Gly Met Gln Phe Asp Lys Gly Tyr Leu Ser Pro Tyr Met Val Thr Asp
          100          105          110
Gln Val Arg Met Glu Ala Val Ile Glu Asp Pro Tyr Ile Leu Ile His
          115          120          125
Ser Arg Lys
          130

```

<210> 845

<211> 505

<212> DNA

<213> Homo sapiens

<400> 845

```

gccacctgcc caaggctgga tgacgggcct agggcacatc taaggaacaa ggacaggaca
60
gaagcaaagc cacagctgct ggggcagggt gggggccggt atgtctggcc agcagcatca
120
cccctgcccc cggcgggggt ccaggaccgg gagactcatc agccggaagc tcttggagga
180
ggcggctgcc gtgaagacag gcacccttgc tcttgagagg ggcacccaga gaaccaagac
240
tcagcagagg gaacacaggg ctacgcccag gccccaggcc tgatatccag agtctaaatc
300
ccacctcagc ccagggggga gccttgagag gagctatgtc cctcatggac ccagtttcc
360
tctgcatacg ggctccgagc cctgcactgc ctccagggta gttcccaagg tcttttccca
420
ttacctccta cgtgagcact cagtaaacca atacacatac acaaggggtga cattaattcc
480
agccacagaa tcccaggcca cgcgt
505

```

<210> 846

<211> 130

<212> PRT

<213> Homo sapiens

<400> 846

```

Met Gly Lys Asp Leu Gly Asn Tyr Pro Gly Gly Ser Ala Gly Leu Gly

```

1 5 10 15  
 Ala Arg Met Gln Arg Lys Leu Gly Ser Met Arg Asp Ile Ala Pro Leu  
 20 25 30  
 Lys Ala Pro Pro Trp Ala Glu Val Gly Phe Arg Leu Trp Ile Ser Gly  
 35 40 45  
 Leu Gly Pro Gly Arg Ser Pro Val Phe Pro Leu Leu Ser Leu Gly Ser  
 50 55 60  
 Leu Gly Ala Pro Leu Arg Ser Lys Gly Ala Cys Leu His Gly Ser Arg  
 65 70 75 80  
 Leu Leu Gln Glu Leu Pro Ala Asp Glu Ser Pro Gly Pro Gly Ala Pro  
 85 90 95  
 Pro Gly Ala Gly Val Met Leu Leu Ala Arg His Thr Gly Pro His Pro  
 100 105 110  
 Ala Pro Ala Ala Val Ala Leu Leu Leu Ser Cys Pro Cys Ser Leu Asp  
 115 120 125  
 Val Pro  
 130

<210> 847  
 <211> 448  
 <212> DNA  
 <213> Homo sapiens

<400> 847  
 aagcttttaa aggagcaaga aaacatgaaa gagctagtag tcaaccttct ccgcatgact  
 60  
 caaatcaaaa ttgatgaaaa ggaacaaaag tccaaggatt tcctgaaagc tcagcaaaaa  
 120  
 tacaccaaca ttgttaaaga aatgaaagca aaggatcttg aaatcaggat acacaagaag  
 180  
 aaaaaatgtg aaatttatcg gagactgaga gagcttgcta aactgtatga caccattcga  
 240  
 aatgaaagaa acaaatttgt taacttactc cacaaagctc atcagaaagt aaatgaaata  
 300  
 aaagaaaggc ataaaatgtc attaaatgaa cttgaaattc tgagaaatag tgccgttagt  
 360  
 caagaaagaa agctacaaaa ttccatgctg aaacacgcca acaatgttac catcagagag  
 420  
 agcatgcaaa acgatgtgcg caaaattt  
 448

<210> 848  
 <211> 149  
 <212> PRT  
 <213> Homo sapiens

<400> 848  
 Lys Leu Leu Lys Glu Gln Glu Asn Met Lys Glu Leu Val Val Asn Leu  
 1 5 10 15  
 Leu Arg Met Thr Gln Ile Lys Ile Asp Glu Lys Glu Gln Lys Ser Lys  
 20 25 30  
 Asp Phe Leu Lys Ala Gln Gln Lys Tyr Thr Asn Ile Val Lys Glu Met  
 35 40 45  
 Lys Ala Lys Asp Leu Glu Ile Arg Ile His Lys Lys Lys Lys Cys Glu

```

      50      55      60
Ile Tyr Arg Arg Leu Arg Glu Leu Ala Lys Leu Tyr Asp Thr Ile Arg
65      70      75      80
Asn Glu Arg Asn Lys Phe Val Asn Leu Leu His Lys Ala His Gln Lys
      85      90      95
Val Asn Glu Ile Lys Glu Arg His Lys Met Ser Leu Asn Glu Leu Glu
      100      105      110
Ile Leu Arg Asn Ser Ala Val Ser Gln Glu Arg Lys Leu Gln Asn Ser
      115      120      125
Met Leu Lys His Ala Asn Asn Val Thr Ile Arg Glu Ser Met Gln Asn
      130      135      140
Asp Val Arg Lys Ile
145

```

```

<210> 849
<211> 463
<212> DNA
<213> Homo sapiens

```

```

<400> 849
nnacgcgtga ttgttggggc caaggaatgc catgtggaga gtgcaggtga agtgataagt
60
cttttggaga tggggaatgc agccagacat acaggtacca ctcaaataaa tgagcactcc
120
agcagatcac atgcaatttt tacaatcagc atttgtcaag ttcataaaaa tatggaggca
180
gctgaagatg gatcatggta ttcccctcgg catattgtct caaagttcca ctttgtggat
240
ttggcaggat cagaaagagt aaccaaacg gggaatactg gtgaacgggtt caaagaatcc
300
attcaaataca atagtggatt gctggcttta ggaaatgtaa taagcgctct tggggaccca
360
cgcaggaaga gttcacatat tccatatagg gatgctaaaa ttacccggct tctgaaagat
420
tctctgggag gcagtgctaa gactgtcatg atcacatgtg tca
463

```

```

<210> 850
<211> 154
<212> PRT
<213> Homo sapiens

```

```

<400> 850
Xaa Arg Val Ile Val Gly Ala Lys Glu Cys His Val Glu Ser Ala Gly
1      5      10      15
Glu Val Ile Ser Leu Leu Glu Met Gly Asn Ala Ala Arg His Thr Gly
      20      25      30
Thr Thr Gln Met Asn Glu His Ser Ser Arg Ser His Ala Ile Phe Thr
      35      40      45
Ile Ser Ile Cys Gln Val His Lys Asn Met Glu Ala Ala Glu Asp Gly
      50      55      60
Ser Trp Tyr Ser Pro Arg His Ile Val Ser Lys Phe His Phe Val Asp
65      70      75      80
Leu Ala Gly Ser Glu Arg Val Thr Lys Thr Gly Asn Thr Gly Glu Arg

```



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 853

acgcgttcag aaacttatgg tgaaatggcc gaactagaaa acctagtcga cgaatattac  
 60  
 caagctatgg gcatggatgt gcgtcgagaa acctggctgc gcgagcagat actcaagaaa  
 120  
 gtccaagaaa cgcatttggtt agaagagctt gcaggcatag aatcaggtga tgatggcgca  
 180  
 gtggtggaag agagcgtatt agaaggcctc gatacctatt tatgtgagat aaaagaagca  
 240  
 cagattcgtc atggattgca tcgtcttgga gaattaccag aagacgataa attggccgat  
 300  
 accttggtcg ccttattgcy ttaccccggt ggcagtgaca ttaccagcaa gggaattttg  
 360  
 catgccttaa tggcagattt agagttagaa caagacgatt ttgaccaat gcaaagcacg  
 420  
 cgt  
 423

&lt;210&gt; 854

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 854

Thr	Arg	Ser	Glu	Thr	Tyr	Gly	Glu	Met	Ala	Glu	Leu	Glu	Asn	Leu	Val
1				5					10					15	
Asp	Glu	Tyr	Tyr	Gln	Ala	Met	Gly	Met	Asp	Val	Arg	Arg	Glu	Thr	Trp
			20					25					30		
Leu	Arg	Glu	Gln	Ile	Leu	Lys	Lys	Val	Gln	Glu	Thr	His	Leu	Leu	Glu
		35					40					45			
Glu	Leu	Ala	Gly	Ile	Glu	Ser	Gly	Asp	Asp	Gly	Ala	Val	Val	Glu	Glu
	50					55					60				
Ser	Val	Leu	Glu	Gly	Leu	Asp	Thr	Tyr	Leu	Cys	Glu	Ile	Lys	Glu	Ala
65					70					75				80	
Gln	Ile	Arg	His	Gly	Leu	His	Arg	Leu	Gly	Glu	Leu	Pro	Glu	Asp	Asp
			85						90					95	
Lys	Leu	Ala	Asp	Thr	Leu	Val	Ala	Leu	Leu	Arg	Leu	Pro	Arg	Gly	Ser
		100						105					110		
Asp	Ile	Thr	Ser	Lys	Gly	Ile	Leu	His	Ala	Leu	Met	Ala	Asp	Leu	Glu
	115					120						125			
Leu	Glu	Gln	Asp	Asp	Phe	Asp	Pro	Met	Gln	Ser	Thr	Arg			
	130					135						140			

&lt;210&gt; 855

&lt;211&gt; 338

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 855

acgcgtgaag ggggagctca aagtagatgg acctctgact agatggagct ctgagtaaga  
 60

tgaatgtctg tgcggatggt gctcacagca agatagtgtc tggagcgatt ggcacttcga  
 120  
 acaagatgga gcatggagca gatggagctc tgagcaagat ggagcgtgga gtagatagag  
 180  
 cttggagcaa gaaggagctc caagcaagat ggagcttgca gcaggtgctt ctcagtgtaa  
 240  
 gatggagctc agagaagatg atgctcagag taagattgag ctcggtgatt ggcactccaa  
 300  
 acattgtctc gagcccattg gagnctctga gcagaaag  
 338

<210> 856  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

<400> 856  
 Met Asn Val Cys Ala Asp Val Ala His Ser Lys Ile Val Leu Gly Ala  
 1 5 10 15  
 Ile Gly Thr Ser Asn Lys Met Glu His Gly Ala Asp Gly Ala Leu Ser  
 20 25 30  
 Lys Met Glu Arg Gly Val Asp Arg Ala Trp Ser Lys Lys Glu Leu Gln  
 35 40 45  
 Ala Arg Trp Ser Leu Gln Gln Val Leu Leu Ser Val Arg Trp Ser Ser  
 50 55 60  
 Glu Lys Met Met Leu Arg Val Arg Leu Ser Ser Val Ile Gly Thr Pro  
 65 70 75 80  
 Asn Ile Ala Leu Ser Pro Leu Glu Xaa Leu Ser Arg Lys  
 85 90

<210> 857  
 <211> 435  
 <212> DNA  
 <213> Homo sapiens

<400> 857  
 ccggacagtg ggccaccagt gtttgccccc agcaatcatg tcagtgaagc ccaacctcgg  
 60  
 gagacacccc ggcccctcat gcctcctacc aagcctttcc tagcacctga gaccaccagc  
 120  
 cctggtgaca ggggtggagac ccctgtgggg gagagagccc caaccctgt ctcagcaagc  
 180  
 tctgaggtct cccctgagag ccaagaggac tcagagaccc cagcagagga ggacagtggc  
 240  
 tctgagcagc ctcccaacag cgtcctgcct gacaaactga aggtgagctg ggagaacccc  
 300  
 agccccaggg agggccctgc tgcagagagt gcagaaccgt cccaggcacc ctgttctgag  
 360  
 acttctgagg ctgccccag ggaggggtggg aagcccccta cccccacc caagatctta  
 420  
 tcagagaaac tgaaa  
 435

<210> 858

<211> 145  
 <212> PRT  
 <213> Homo sapiens

<400> 858  
 Pro Asp Ser Gly Pro Pro Val Phe Ala Pro Ser Asn His Val Ser Glu  
 1 5 10 15  
 Ala Gln Pro Arg Glu Thr Pro Arg Pro Leu Met Pro Pro Thr Lys Pro  
 20 25 30  
 Phe Leu Ala Pro Glu Thr Thr Ser Pro Gly Asp Arg Val Glu Thr Pro  
 35 40 45  
 Val Gly Glu Arg Ala Pro Thr Pro Val Ser Ala Ser Ser Glu Val Ser  
 50 55 60  
 Pro Glu Ser Gln Glu Asp Ser Glu Thr Pro Ala Glu Glu Asp Ser Gly  
 65 70 75 80  
 Ser Glu Gln Pro Pro Asn Ser Val Leu Pro Asp Lys Leu Lys Val Ser  
 85 90 95  
 Trp Glu Asn Pro Ser Pro Gln Glu Ala Pro Ala Ala Glu Ser Ala Glu  
 100 105 110  
 Pro Ser Gln Ala Pro Cys Ser Glu Thr Ser Glu Ala Ala Pro Arg Glu  
 115 120 125  
 Gly Gly Lys Pro Pro Thr Pro Pro Pro Lys Ile Leu Ser Glu Lys Leu  
 130 135 140  
 Lys  
 145

<210> 859  
 <211> 561  
 <212> DNA  
 <213> Homo sapiens

<400> 859  
 nacgcgtggt gtggtaatcc ggtttctggt ggcgacggct gccacccctc gtggcaagac  
 60  
 atgccgttgc gtgccgatat gccatacgaa gcttggccta gtgcgaaaag ctcgctggaa  
 120  
 ccctcgaaga ggcagggctc gcagggtacc gtggctcggtg tacgcatcgt ttcgacgatg  
 180  
 aaccccatc tgggagcaga tatgacgacg taccagtacc tcattgtcgg tggcgggatg  
 240  
 gccgctgatt ctgccgcccg cggatatccg gacatcgaca agaaagggtc gatcgccatc  
 300  
 ctcagcgtg acgtcgacgc cccgtatcct cggccagcgc tgagcaagaa gctgtggact  
 360  
 gaccctgagt tcacctggga ccaggctcgc cttgctactg tcgctgacac cggcgcggaa  
 420  
 ttgcggctcg gcaactgaggt gctcagcatt gaccgtgacg gcaagaccgt cctgaccgct  
 480  
 tccggccagg tattcggcta ccagaagttg ctgctcgta ccggccttac cccgtcgcgc  
 540  
 attgacgacg acggcgatgc c  
 561

<210> 860



<211> 187  
 <212> PRT  
 <213> Homo sapiens

<400> 860  
 Xaa Ala Trp Cys Gly Asn Pro Val Ser Gly Gly Asp Gly Cys His Pro  
 1 5 10 15  
 Ser Trp Gln Asp Met Pro Leu Arg Ala Asp Met Pro Tyr Glu Ala Trp  
 20 25 30  
 Pro Ser Ala Lys Ser Ser Leu Glu Pro Ser Lys Arg Gln Gly Arg Gln  
 35 40 45  
 Val Thr Val Val Gly Val Arg Ile Val Ser Thr Met Asn Pro Ile Leu  
 50 55 60  
 Gly Ala Asp Met Thr Thr Tyr Gln Tyr Leu Ile Val Gly Gly Gly Met  
 65 70 75 80  
 Ala Ala Asp Ser Ala Ala Arg Gly Ile Arg Asp Ile Asp Lys Lys Gly  
 85 90 95  
 Ser Ile Ala Ile Leu Ser Ala Asp Val Asp Ala Pro Tyr Pro Arg Pro  
 100 105 110  
 Ala Leu Ser Lys Lys Leu Trp Thr Asp Pro Glu Phe Thr Trp Asp Gln  
 115 120 125  
 Val Asp Leu Ala Thr Val Ala Asp Thr Gly Ala Glu Leu Arg Leu Gly  
 130 135 140  
 Thr Glu Val Leu Ser Ile Asp Arg Asp Gly Lys Thr Val Leu Thr Ala  
 145 150 155 160  
 Ser Gly Gln Val Phe Gly Tyr Gln Lys Leu Leu Leu Val Thr Gly Leu  
 165 170 175  
 Thr Pro Ser Arg Ile Asp Asp Asp Gly Asp Ala  
 180 185

<210> 861  
 <211> 352  
 <212> DNA  
 <213> Homo sapiens

<400> 861  
 ccatggggtt ctatgctctg aggtttcatc tgtggggaac agtattgact tacttacaaa  
 60  
 gagataatgg tcatacccta tggtcactca ccatagtctg gcggtacatg gacttctcag  
 120  
 cccagtaag atctgtatcc acaggacact taaagtcacc ttacagaggg ctatcccagt  
 180  
 gcctgaggcc tattagaggc gtctcttttc agccatcagt gttagaggcc atctgcatgg  
 240  
 gatcccagag cctgcctcgg gaatggcaga agctggctgg tgcttggcgt gggctttgcc  
 300  
 tgtttcactg ctttcaggga ggctgccac aggggagaaa ctgggggggg ga  
 352

<210> 862  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 862

```

Met Gly Phe Tyr Ala Leu Arg Phe His Leu Trp Gly Thr Val Leu Thr
 1           5           10           15
Tyr Leu Gln Arg Asp Asn Gly His Thr Leu Trp Ser Leu Thr Ile Val
           20           25           30
Trp Arg Tyr Met Asp Phe Ser Ala Pro Val Arg Ser Val Ser Thr Gly
           35           40           45
His Leu Lys Ser Pro Tyr Arg Gly Leu Ser Gln Cys Leu Arg Pro Ile
           50           55           60
Arg Gly Val Ser Phe Gln Pro Ser Val Leu Glu Ala Ile Cys Met Gly
65           70           75           80
Ser Gln Ser Leu Pro Arg Glu Trp Gln Lys Leu Ala Gly Ala Trp Arg
           85           90           95
Gly Leu Cys Leu Phe His Cys Phe Gln Gly Gly Leu Pro Gln Gly Arg
           100          105          110
Asn Trp Gly Gly
           115

```

&lt;210&gt; 863

&lt;211&gt; 327

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 863

```

tccggatcga cccggacgaa ttccacggtc cagccattga cttccaaatg ctctttgaca
60
tacgccgtga catgttcaat gtccaactta cgcattgtcca cccgctcacc ggtctcattg
120
agtttgagct gcgagtagac gttgcggtag ttctcgttga ccgactgctc atacgagatg
180
tgcagaagca tcggtttgcg gccatcctcg gacggcattg gcttggttgta catggccgct
240
tggcggaaca tggttcagggt aaagcccgac ttgaagttgt gcgacagggc agaaacacac
300
agcatttctg accggcgatg acccatn
327

```

&lt;210&gt; 864

&lt;211&gt; 108

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 864

```

Met Gly His Arg Arg Ser Glu Met Leu Cys Val Ser Ala Leu Ser His
 1           5           10           15
Asn Phe Lys Ser Gly Phe Thr Leu Asn Met Phe Arg Gln Ala Ala Met
           20           25           30
Tyr Asn Lys Pro Met Pro Ser Glu Asp Gly Arg Lys Pro Met Leu Leu
           35           40           45
His Ile Ser Tyr Glu Gln Ser Val Asn Glu Asn Tyr Arg Asn Val Tyr
           50           55           60
Ser Gln Leu Lys Leu Asn Glu Thr Gly Glu Arg Val Asp Met Arg Lys
65           70           75           80
Leu Asp Ile Glu His Val Thr Ala Tyr Val Lys Glu His Leu Glu Val

```

85 90 95  
 Asn Gly Trp Thr Val Glu Phe Val Arg Val Asp Pro  
 100 105

<210> 865  
 <211> 729  
 <212> DNA  
 <213> Homo sapiens

<400> 865  
 acgcgtcatc ctcattcaag aggccagga ggagcaccac cctccgcata ttgcgcgtgc  
 60  
 agctctcggt ctggtctctg agcatgccca cggcgtctg cacacagctt ctcagcagcc  
 120  
 tgggtggtgtc caggatcgac acatcactgc ctccgagttc agaggtttcc tttcccacct  
 180  
 tctcagaact ttctgtttcc atggcctcct ctgccacctc tgccacctcc cctgatgtgc  
 240  
 tggcctccgt ctccatcgcc tcctcatggc cgtcttccgc ccggtgttcc aagcccagct  
 300  
 caggcaagtc tccgggcgcg aacagctggc tgatggtgac atgctgcagc ctggtcacat  
 360  
 cagaaaccat gaggggtggat ctccggaggt catcgatgtg gacagactgc cacagccctc  
 420  
 cgtggaagcc cacataggct gttcctcttc ccaccggga cagttttgtg atgaaataga  
 480  
 cgaagatacg gtcctcattt tctcgtattt tgttgatttc attataaca gaatacttag  
 540  
 ctgaggcaat gagctgggcg ctacggattc catcttcaaa atctgtctga aaaatgagga  
 600  
 ttttacattt ggctgtattc gttaaacagt ttcggacttc tttgaggaat gagtactcgg  
 660  
 tgtcaaactg ctgcagccac aggagtgtgg gtttcggagc cctgcctgtg acctctgatt  
 720  
 ctaaaattt  
 729

<210> 866  
 <211> 83  
 <212> PRT  
 <213> Homo sapiens

<400> 866  
 Ala Cys Pro Arg Arg Ser Ala His Ser Phe Ser Ala Ala Trp Trp Cys  
 1 5 10 15  
 Pro Gly Ser Thr His His Cys Leu Arg Val Gln Arg Phe Pro Phe Pro  
 20 25 30  
 Pro Ser Gln Asn Phe Leu Phe Pro Trp Pro Pro Leu Pro Pro Leu Pro  
 35 40 45  
 Pro Pro Leu Met Cys Trp Pro Pro Ser Pro Ser Pro Pro His Gly Arg  
 50 55 60  
 Leu Pro Pro Gly Val Pro Ser Pro Ala Gln Ala Ser Leu Arg Ala Arg  
 65 70 75 80  
 Thr Ala Gly

<210> 867  
<211> 640  
<212> DNA  
<213> Homo sapiens

<400> 867  
nntccggaac atcaagatcc aggcgcagaa gaccgtcaga agctgcactg gccacctcct  
60  
tcagggtggac tctcgttggg ggccggcgctc gctggccccc tcgcaccctgg tcccgtgtca  
120  
catgctccag ggcgcagctc ttgtccacct ttacctcatc gaaagccttg tttttgcctc  
180  
ggttaatccc ttcattgagg gctttgatcc aggattcctt ctccctccccg gtgggtgcct  
240  
ggaatttgat gtcgctgacc ttgttccttg gggatcgcag caggataaag cgggtgttttc  
300  
gcttgaggag ggcacgaagg tcctggcact tctcatagct gccagctcc acagtctcca  
360  
cacacttctg atcatcctca ttctcataga ccagcagctg ggccctggcag aggagcagat  
420  
atcgggtcttt ccagaaaccc aggaggcccc cactgctctt cttgatccag ccagccttgc  
480  
ccaccatctg tgctccccga ggcttctcac cggttctctt cacaccctcc tcctccatgg  
540  
cgagtccgcc gaggtcccg cgcctccgcca ctgccttcca gcgccgcgcg ggctctgcc  
600  
ccgcgtctac gcccggccag gcggcgactc tccgcgttct  
640

<210> 868  
<211> 52  
<212> PRT  
<213> Homo sapiens

<400> 868  
Gly Gly His Glu Gly Pro Gly Thr Ser His Ser Cys Pro Ala Pro Gln  
1 5 10 15  
Ser Pro His Thr Ser Asp His Pro His Ser His Arg Pro Ala Ala Gly  
20 25 30  
Pro Gly Arg Gly Ala Asp Ile Gly Leu Ser Arg Asn Pro Gly Gly Pro  
35 40 45  
His Cys Ser Ser  
50

<210> 869  
<211> 321  
<212> DNA  
<213> Homo sapiens

<400> 869  
ngggatgatgc tgctcgcggc attgagcatc tttgtgctca gcgcgctgtt tatcgacaac  
60

ttcctgtcgc cgctgaatat gcgcgggctg ggcctggcga tttcgacggt gggcatcgct  
 120  
 gcgtgcacca tgctgttctg cctggcgctg gggcatttcg acttgctcgtt gggctcgggtg  
 180  
 atcgctgtg ccggtgtggt cgcggggatt gtgattcgtg acaccgatat cgtggcactc  
 240  
 ggcgtgtccg ctgcgttgge catgggcctg gtagtggggc tgatcaacgg catcgtgatc  
 300  
 gccaaactgc gcatcaacgc g  
 321

<210> 870  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 870  
 Xaa Val Met Leu Leu Ala Ala Leu Ser Ile Phe Val Leu Ser Ala Leu  
 1 5 10 15  
 Phe Ile Asp Asn Phe Leu Ser Pro Leu Asn Met Arg Gly Leu Gly Leu  
 20 25 30  
 Ala Ile Ser Thr Val Gly Ile Ala Ala Cys Thr Met Leu Phe Cys Leu  
 35 40 45  
 Ala Ser Gly His Phe Asp Leu Ser Val Gly Ser Val Ile Ala Cys Ala  
 50 55 60  
 Gly Val Val Ala Gly Ile Val Ile Arg Asp Thr Asp Ser Val Ala Leu  
 65 70 75 80  
 Gly Val Ser Ala Ala Leu Ala Met Gly Leu Val Val Gly Leu Ile Asn  
 85 90 95  
 Gly Ile Val Ile Ala Lys Leu Arg Ile Asn Ala  
 100 105

<210> 871  
 <211> 320  
 <212> DNA  
 <213> Homo sapiens

<400> 871  
 agatcttcag agtcctcgtc ttttaaattgg gggtaacagc agcaagtcct cagaggtgtc  
 60  
 ctgagcctca aaacacatcc tggtttgtaa cgtccgcagc ctcagcaggg gctaggcaca  
 120  
 gaacaagcat tcaggacctg gaaggtacca gcgacacctg gtccctccctt cccaggcaca  
 180  
 aggcagcccc tctccattca agctctgccc cagcccagca aagagagggg tcctcagcca  
 240  
 ctgccccac cactaccaca atcatactca cctctcctgg tccatacgtg acaaaggacc  
 300  
 tgccacggcc agggagacaa  
 320

<210> 872  
 <211> 98  
 <212> PRT

<213> Homo sapiens

<400> 872

```

Met Gly Val Thr Ala Ala Ser Pro Gln Arg Cys Pro Glu Pro Gln Asn
 1             5             10             15
Thr Ser Trp Phe Val Thr Ser Ala Ala Ser Ala Gly Ala Arg His Arg
      20             25             30
Thr Ser Ile Gln Asp Leu Glu Gly Thr Ser Asp Thr Trp Ser Ser Leu
      35             40             45
Pro Arg His Lys Ala Ala Pro Leu His Ser Ser Ser Ala Pro Ala Gln
      50             55             60
Gln Arg Glu Gly Ser Ser Ala Thr Ala Pro Thr Thr Thr Thr Ile Ile
65             70             75             80
Leu Thr Ser Pro Gly Pro Tyr Val Thr Lys Asp Leu Pro Arg Pro Gly
      85             90             95
Arg Gln

```

<210> 873

<211> 363

<212> DNA

<213> Homo sapiens

<400> 873

```

nttgtttagc atcgtttttt acgggtgtat cagcgcgttt agcagcgttt ttagcggatg
60
catcagcatg ttttgcgtca cgttttacia ctgtgctacc gtgttttagca tcatttttga
120
cggaggtatc aatacgttta gcatcgtttt taacagatgt atcaacacgg ggttcatccg
180
cttttagcaga atccccagct ctagtagcca ctttagatac ttcagatttt atatgagtcg
240
cagttgtttc agcgtgagcc atgctgaatg tagaaccaag ggccaatgta attgctaaag
300
acaaagataa tttatttagt ttcattgttc gagagaagtg tgcgaattcg gcgatacagt
360
cag
363

```

<210> 874

<211> 108

<212> PRT

<213> Homo sapiens

<400> 874

```

Met Lys Leu Asn Lys Leu Ser Leu Ser Leu Ala Ile Thr Leu Ala Leu
 1             5             10             15
Gly Ser Thr Phe Ser Met Ala His Ala Glu Thr Thr Ala Thr His Ile
      20             25             30
Lys Ser Glu Val Ser Lys Val Ala Thr Arg Ala Gly Asp Ser Ala Lys
      35             40             45
Ala Asp Glu Pro Arg Val Asp Thr Ser Val Lys Asn Asp Ala Lys Arg
      50             55             60
Ile Asp Thr Ser Val Lys Asn Asp Ala Lys His Gly Ser Thr Val Val

```



caatccacct atgctaaacg tggtcagcaa gggtatctca cacgagaatt ctttggtttg  
 120  
 ttggccaata ccatgggaga tcaaatacctt ttagtacagg cgtacagaga aggcgaagcg  
 180  
 atcgccgcgt cgtggtgttt ctttgatgat cattcactat atgggcgtta ttggggctgt  
 240  
 atggaagaag tggattgcct gcattttgaa gcttggttatt accaaggaat cgagttttgt  
 300  
 ctcgaaaaag ggttacagca tttcgatccg ggtacacaag gggaacacaa gattgcgcgc  
 360  
 ggctttgaac ctgttttttag ccacagcgtg cattacattg ctcacaaagg ttttcgtgaa  
 420  
 gcgattggga atttctgtga ggaagaagcg caagctgtgc gcgagtatca tcaagatacc  
 480  
 cacgcgt  
 487

<210> 878  
 <211> 162  
 <212> PRT  
 <213> Homo sapiens

<400> 878  
 Thr Arg Thr Leu Gly Asn Glu Leu Thr Thr Ala Glu Ile Asp Cys Leu  
 1 5 10 15  
 Tyr Leu Cys Tyr Gln Ser Thr Tyr Ala Lys Arg Gly Gln Gln Gly Tyr  
 20 25 30  
 Leu Thr Arg Glu Phe Phe Gly Leu Leu Ala Asn Thr Met Gly Asp Gln  
 35 40 45  
 Ile Leu Leu Val Gln Ala Tyr Arg Glu Gly Glu Ala Ile Ala Ala Ser  
 50 55 60  
 Trp Cys Phe Phe Asp Asp His Ser Leu Tyr Gly Arg Tyr Trp Gly Cys  
 65 70 75 80  
 Met Glu Glu Val Asp Cys Leu His Phe Glu Ala Cys Tyr Tyr Gln Gly  
 85 90 95  
 Ile Glu Phe Cys Leu Glu Lys Gly Leu Gln His Phe Asp Pro Gly Thr  
 100 105 110  
 Gln Gly Glu His Lys Ile Ala Arg Gly Phe Glu Pro Val Phe Ser His  
 115 120 125  
 Ser Val His Tyr Ile Ala His Gln Gly Phe Arg Glu Ala Ile Gly Asn  
 130 135 140  
 Phe Cys Glu Glu Glu Ala Gln Ala Val Arg Glu Tyr His Gln Asp Thr  
 145 150 155 160  
 His Ala

<210> 879  
 <211> 993  
 <212> DNA  
 <213> Homo sapiens

<400> 879  
 nncttagcat ttaagccaac gaggcagcta atgtcctctg aacagcaaag gaaattcagc  
 60



agccagtcca gtagggctct gacccctcct tectacagta ctgctaaaaa ttcattggga  
 120  
 tcaagatcca gtgaatcctt tgggaagtac acatcgccag taatgagtga gcatggggac  
 180  
 gagcacaggc agtcctcttc tcaccaatg caaggccctg gactccgtgc agctacctca  
 240  
 tccaaccact ctgtggacga gcaactgaag aatactgaca cgcacctcat cgacctggta  
 300  
 accaatgaga ttatcaccca aggacctcca gtggactgga atgacattgc tggctctgac  
 360  
 ctggtgaagg ctgtcattaa agaggagggt ttatggccag tggtgaggtc agacgcgttc  
 420  
 agtggactga cggccttacc tcggagcatc cttttatttg gacctcgggg gacaggcaaa  
 480  
 acattattgg gcagatgcat cgctagtcag ctggggggcca catttttcaa aattgccggt  
 540  
 tctggactag tcgccaaggg gttaggagaa gcagagaaaa ttatccatgc ctcttttctt  
 600  
 gtggccaggt gtcgccagcc ctcggtgatt tttgttagtg acattgacat gcttctctcc  
 660  
 tctcaagtga atgaggaaca tagtccagtc agtcggatga gaaccgaatt tctgatgcaa  
 720  
 ctggacactg tactaacttc ggctgaggac caaatcgtag taatttgtgc caccagtaaa  
 780  
 ccagaagaaa tagatgaatc ccttcggagg tacttcatga aacgactttt aatcccactt  
 840  
 cctgacagca cagcgaggca ccagataata gtacaactgc tctcacagca caattactgt  
 900  
 ctcaatgaca aggagtttgc actgctcgtc cagcgcacag aaggcttttc tggactagat  
 960  
 gtggctcatt tgtgtcagga agcagtgggtg ggc  
 993

<210> 880  
 <211> 331  
 <212> PRT  
 <213> Homo sapiens

<400> 880  
 Xaa Leu Ala Phe Lys Pro Thr Arg Gln Leu Met Ser Ser Glu Gln Gln  
 1 5 10 15  
 Arg Lys Phe Ser Ser Gln Ser Ser Arg Ala Leu Thr Pro Pro Ser Tyr  
 20 25 30  
 Ser Thr Ala Lys Asn Ser Leu Gly Ser Arg Ser Ser Glu Ser Phe Gly  
 35 40 45  
 Lys Tyr Thr Ser Pro Val Met Ser Glu His Gly Asp Glu His Arg Gln  
 50 55 60  
 Leu Leu Ser His Pro Met Gln Gly Pro Gly Leu Arg Ala Ala Thr Ser  
 65 70 75 80  
 Ser Asn His Ser Val Asp Glu Gln Leu Lys Asn Thr Asp Thr His Leu  
 85 90 95  
 Ile Asp Leu Val Thr Asn Glu Ile Ile Thr Gln Gly Pro Pro Val Asp  
 100 105 110  
 Trp Asn Asp Ile Ala Gly Leu Asp Leu Val Lys Ala Val Ile Lys Glu

115	120	125
Glu Val Leu Trp Pro Val Leu Arg Ser Asp Ala Phe Ser Gly Leu Thr		
130	135	140
Ala Leu Pro Arg Ser Ile Leu Leu Phe Gly Pro Arg Gly Thr Gly Lys		
145	150	155
Thr Leu Leu Gly Arg Cys Ile Ala Ser Gln Leu Gly Ala Thr Phe Phe		
165	170	175
Lys Ile Ala Gly Ser Gly Leu Val Ala Lys Gly Leu Gly Glu Ala Glu		
180	185	190
Lys Ile Ile His Ala Ser Phe Leu Val Ala Arg Cys Arg Gln Pro Ser		
195	200	205
Val Ile Phe Val Ser Asp Ile Asp Met Leu Leu Ser Ser Gln Val Asn		
210	215	220
Glu Glu His Ser Pro Val Ser Arg Met Arg Thr Glu Phe Leu Met Gln		
225	230	235
Leu Asp Thr Val Leu Thr Ser Ala Glu Asp Gln Ile Val Val Ile Cys		
245	250	255
Ala Thr Ser Lys Pro Glu Glu Ile Asp Glu Ser Leu Arg Arg Tyr Phe		
260	265	270
Met Lys Arg Leu Leu Ile Pro Leu Pro Asp Ser Thr Ala Arg His Gln		
275	280	285
Ile Ile Val Gln Leu Leu Ser Gln His Asn Tyr Cys Leu Asn Asp Lys		
290	295	300
Glu Phe Ala Leu Leu Val Gln Arg Thr Glu Gly Phe Ser Gly Leu Asp		
305	310	315
Val Ala His Leu Cys Gln Glu Ala Val Val Gly		
325	330	

<210> 881  
 <211> 313  
 <212> DNA  
 <213> Homo sapiens

<400> 881  
 cgcgtagagcg tcgacaatgc tccaggaacc ggtgtgtatg aggccgggga ttctaccggt  
 60  
 cgtgggtttgc agggcatgcg tgagcgcgcc cgtatccatg gcggcaccgc gcgctggggc  
 120  
 gactcgcagt attatgaagg cggtttcaac gtcacggtgg agattccaac atgagcggcc  
 180  
 aaaggatgaa catggacacg acgcgcccc aacacggtcg gggcttgccg acgatcagcc  
 240  
 ggctgggtgc gcaccggttt tgccatggtg ctggattcgc aggacgacat cacggtggcc  
 300  
 tggcaagccg acn  
 313

<210> 882  
 <211> 57  
 <212> PRT  
 <213> Homo sapiens

<400> 882  
 Arg Val Ser Val Asp Asn Ala Pro Gly Thr Gly Val Tyr Glu Ala Gly

```

      1           5           10           15
Asp Ser Thr Gly Arg Gly Leu Gln Gly Met Arg Glu Arg Ala Arg Ile
      20           25           30
His Gly Gly Thr Ala Arg Trp Gly Asp Ser Gln Tyr Tyr Glu Gly Gly
      35           40           45
Phe Asn Val Thr Val Glu Ile Pro Thr
      50           55

```

<210> 883  
 <211> 576  
 <212> DNA  
 <213> Homo sapiens

```

<400> 883
naattaagat ctgggggtccc agtgtcattg gtgaaggcct tgggattcga ggcagctgag
60
tcctcactga ccaaggcaag ccatgcttct gagtgcttga ggccaccgaa atgaacaaat
120
ggaaaacact cccatctttt tcaagcctac ctttttagcag aagaggcaga tacacaagcc
180
ctaaagatgt aacatcaggc tgagtggagg aaggctgaga agaaaaataa agcagggtca
240
ggaggagaga gtgatgtcag gatgcccttg tgcttactcc agcctccttg tgaaaaccca
300
gctctcctgt ctcccagtga agacttggat ggcagccatc aggggaaggct ggggtcccagc
360
tgggagtatg ggtgtgagct ctatagacca tccctctctg caatcaataa acacttgctt
420
gtgaaagagg cccaagccac catccgcatg gacaccagtg caagtggccc caccgcctg
480
gtcctcagtg actgtgccac cagccatggg agcctgcgca tccaactgct gcataagctc
540
tccttcctgg tgaacgcctt agctaagcag gtcatg
576

```

<210> 884  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

```

<400> 884
Met Pro Leu Cys Leu Leu Gln Pro Pro Cys Glu Asn Pro Ala Leu Leu
1           5           10           15
Ser Pro Ser Glu Asp Leu Asp Gly Ser His Gln Gly Arg Leu Gly Pro
      20           25           30
Ser Trp Glu Tyr Gly Cys Glu Leu Tyr Arg Pro Ser Leu Ser Ala Ile
      35           40           45
Asn Lys His Leu Pro Val Lys Glu Ala Gln Ala Thr Ile Arg Met Asp
      50           55           60
Thr Ser Ala Ser Gly Pro Thr Arg Leu Val Leu Ser Asp Cys Ala Thr
      65           70           75           80
Ser His Gly Ser Leu Arg Ile Gln Leu Leu His Lys Leu Ser Phe Leu
      85           90           95
Val Asn Ala Leu Ala Lys Gln Val Met

```

100

105

<210> 885  
<211> 370  
<212> DNA  
<213> Homo sapiens

<400> 885  
actagtggcg cccatcatccg ggccgctgtc ccgctctcgg agtcggctgc gttggagtc  
60  
ggtgaggcga tgctgacgaa cgacacaccg gtgacttggg atggcgggaa agtacggggc  
120  
aggcgggtgt cgcgcctcgg tgcgatcgag ttgtcgtcga ccccggtccg cccagatccg  
180  
gtacgggctc gccacgtggc gctggaagca gtgaggtctg ggggacttga cgtacgagc  
240  
ctgacgaaga acggtgaatc tttgcgacgc cgtcttgccc tggcccatcg ggtgtttggt  
300  
gatccctggc ccgatgtcag cgatgagget ctgctagcct gcgccgagga gtggcttgac  
360  
ctcgacgcgt  
370

<210> 886  
<211> 123  
<212> PRT  
<213> Homo sapiens

<400> 886  
Thr Ser Gly Ala Leu Ile Arg Ala Ala Val Pro Leu Ser Glu Ser Ala  
1 5 10 15  
Ala Leu Glu Ser Gly Glu Ala Met Leu Thr Asn Asp Thr Pro Val Thr  
20 25 30  
Trp Asp Gly Gly Lys Val Arg Gly Arg Arg Val Ser Arg Leu Gly Ala  
35 40 45  
Ile Glu Leu Ser Ser Thr Pro Val Arg Pro Asp Pro Val Arg Ala Arg  
50 55 60  
His Val Ala Leu Glu Ala Val Arg Ser Gly Gly Leu Asp Val Ala Ser  
65 70 75 80  
Leu Thr Lys Asn Gly Glu Ser Leu Arg Arg Arg Leu Ala Leu Ala His  
85 90 95  
Arg Val Phe Gly Asp Pro Trp Pro Asp Val Ser Asp Glu Ala Leu Leu  
100 105 110  
Ala Cys Ala Glu Glu Trp Leu Asp Leu Asp Ala  
115 120

<210> 887  
<211> 447  
<212> DNA  
<213> Homo sapiens

<400> 887  
cagggcggtg cgctcggctg cgtgctgccg atggtcacgc tcggaggctt aaccgcatc  
60

attatctccg gctgcctgaa ccagcttggt aaacgctatc cgcattctgac cggcgaaggc  
 120  
 caactgatgc caaacgtgc taatgctgat accacggctt cccaaccggc gttctccggt  
 180  
 aaagcggacg tgaccaccat tgcctccggc gcgttgctgg ccgtgctgct ttacatgggtg  
 240  
 ggtaggttgg ttcacaagtt gattggcctg cctgctccgg ttggcatgtt gtttgtggcg  
 300  
 gtgctgggtca aactgtgcaa cggcgcttct ccccgctgc tcgaaggctc gcaggtgggt  
 360  
 taaaaattct tccagacctc cgtcacctat ccgattctgt tcgccgttgg cgtggcgatt  
 420  
 acgccgtggc aggaactggc caacgcg  
 447

<210> 888  
 <211> 149  
 <212> PRT  
 <213> Homo sapiens

<400> 888  
 Gln Gly Val Ala Leu Gly Arg Val Leu Pro Met Val Met Leu Gly Gly  
 1 5 10 15  
 Leu Thr Ala Ile Ile Ile Ser Gly Cys Leu Asn Gln Leu Gly Lys Arg  
 20 25 30  
 Tyr Pro His Leu Thr Gly Glu Gly Gln Leu Met Pro Asn Arg Ala Asn  
 35 40 45  
 Ala Asp Thr Thr Ala Ser Gln Pro Ala Phe Ser Gly Lys Ala Asp Val  
 50 55 60  
 Thr Thr Ile Ala Ser Gly Ala Leu Leu Ala Val Leu Leu Tyr Met Val  
 65 70 75 80  
 Gly Arg Leu Val His Lys Leu Ile Gly Leu Pro Ala Pro Val Gly Met  
 85 90 95  
 Leu Phe Val Ala Val Leu Val Lys Leu Cys Asn Gly Ala Ser Pro Arg  
 100 105 110  
 Leu Leu Glu Gly Ser Gln Val Val Tyr Lys Phe Phe Gln Thr Ser Val  
 115 120 125  
 Thr Tyr Pro Ile Leu Phe Ala Val Gly Val Ala Ile Thr Pro Trp Gln  
 130 135 140  
 Glu Leu Val Asn Ala  
 145

<210> 889  
 <211> 450  
 <212> DNA  
 <213> Homo sapiens

<400> 889  
 ggtaccaccc cacacctgac aagaggtggc cagggaggaa gggagggttc ttacctcccc  
 60  
 atctcccctc agtaaaattc aggatgccca gtgaagtttg aatgtcagat aaacaatttg  
 120  
 ttagtataag gatgtacctc gcattgaaat gatgccttgt aatttactaa atctgcaact  
 180

atgcagcctt atttcatggc gggcagtggc ggtgatccca ggtttcaggg gcggggaagg  
 240  
 gtgctgggga gattctgagg tcaggaaccc gtacacctct gcttctgccc tctcttcccc  
 300  
 gtgccggcca caaggcaatg actcctgtgt ggggtgcagag gcagaaatgg gtctggaagg  
 360  
 ggattcccag tgtctggcaa gttctggtaa attctgcatt ggaggttctc tctgtagtaa  
 420  
 ggggagttgg cctggccgcc cttcacgcgt  
 450

<210> 890  
 <211> 100  
 <212> PRT  
 <213> Homo sapiens

<400> 890  
 Met Met Pro Cys Asn Leu Leu Asn Leu Gln Leu Cys Ser Leu Ile Ser  
 1 5 10 15  
 Trp Arg Ala Val Ala Val Ile Pro Gly Phe Arg Gly Gly Glu Gly Cys  
 20 25 30  
 Trp Gly Asp Pro Glu Val Arg Asn Pro Tyr Thr Ser Ala Ser Ala Leu  
 35 40 45  
 Ser Ser Leu Cys Arg Pro Gln Gly Asn Asp Ser Cys Val Gly Ala Glu  
 50 55 60  
 Ala Glu Met Gly Leu Glu Gly Asp Ser Gln Cys Leu Ala Ser Ser Gly  
 65 70 75 80  
 Lys Phe Cys Ile Gly Gly Ser Leu Cys Ser Lys Gly Ser Trp Pro Gly  
 85 90 95  
 Arg Pro Ser Arg  
 100

<210> 891  
 <211> 318  
 <212> DNA  
 <213> Homo sapiens

<400> 891  
 nncaccgtcc ccgtactgga tccgcgcgag gatttcgccg actgcatgca cattgacgta  
 60  
 ctggatccct tccacactga caacaccagt gagcacagt acctggccac agatggccag  
 120  
 actaacggcc cggctgatag cgggactggc acccactctg agcagggaaa ctccgacata  
 180  
 tctagccccg tcagctctag tgacgctgct aacaccaccg acagcactgc tggcaatacc  
 240  
 ggtgaaggta ctgccgcgaa tatgcctggg gacatggctc attcttcgac ggctacccac  
 300  
 ccctatgcaa gcaccggt  
 318

<210> 892  
 <211> 106  
 <212> PRT

<213> Homo sapiens

<400> 892

```

Xaa Thr Val Pro Val Leu Asp Pro Arg Glu Asp Phe Ala Asp Cys Met
 1           5           10           15
His Ile Asp Val Leu Asp Pro Phe His Thr Asp Asn Thr Ser Glu His
      20           25           30
Ser Asp Leu Ala Thr Asp Gly Gln Thr Asn Gly Pro Ala Asp Ser Gly
      35           40           45
Thr Gly Thr His Ser Glu Gln Gly Asn Ser Asp Ile Ser Ser Pro Val
      50           55           60
Ser Ser Ser Asp Ala Ala Asn Thr Thr Asp Ser Thr Ala Gly Asn Thr
65           70           75           80
Gly Glu Gly Thr Ala Ala Asn Met Pro Gly Asp Met Ala His Ser Ser
      85           90           95
Thr Ala Thr His Pro Tyr Ala Ser Thr Gly
      100           105

```

<210> 893

<211> 510

<212> DNA

<213> Homo sapiens

<400> 893

```

nnggatccta tccctgaatc taagggtggg gacacatgtg tttgggatag caaggtagag
60
aagtcacaga aaaagcctgt ggaaaacagg atgaaggagg acaaaagcag catcagggaa
120
gcaatcagca aagccaagag tacagcaa ataaagacag aacaggaagg tgaggcatct
180
gagaagagct tgcattctgag cccacagcat atcacacacc agactatgcc tataggacag
240
agaggcagtg agcaaggcaa acgtgtggag aacattaatg gaacctccta ccctagtccta
300
cagcagaaaa ccaatgctgt taagaaatta cataaatgtg atgaatgtgg gaaatccttc
360
aaatataatt cccgccttgt tcaacataaa attatgcaca ctgggggaaaa gcgctatgaa
420
tgtgatgact gtggaggggac tttccggagc agctcgagcc ttcgggtcca caaacggatc
480
cacactgggt acggagagaa gacaacgcgt
510

```

<210> 894

<211> 170

<212> PRT

<213> Homo sapiens

<400> 894

```

Xaa Asp Pro Ile Pro Glu Ser Lys Val Gly Asp Thr Cys Val Trp Asp
 1           5           10           15
Ser Lys Val Glu Lys Ser Gln Lys Lys Pro Val Glu Asn Arg Met Lys
      20           25           30
Glu Asp Lys Ser Ser Ile Arg Glu Ala Ile Ser Lys Ala Lys Ser Thr

```

<400> 895					
cggccgcaga	attgggtcgg	gcatttccag	atgttcccgt	ggttgattcg	tccggcaatc
60					
acgttcggga	gagggtcgat	tcaactcccc	gattaatcgt	tgccacccca	agggccgaac
120					
cgcaccgga	atcgggcttt	tcttggggct	gccttcctaa	atgcggtgtc	ctccttgctg
180					
aggcctggcc	tggcggcggt	ggagcagacc	gtcgatcggg	ggatggcaat	cctggccttg
240					
gtccgatcag	tgcgggatgg	gggccgggca	gttatcgtcg	ggccttcgga	ggacgccgcc
300					
ttgcaggcca	tggttcgaaa	tgatccagtc	gggtgggcca	cacgtgaact	cgccgatcgt
360					
cgggaggcac	atttcccgcc	cgcggtgccg	tgcggaattg	tcgacggtga	cccgaagcgc
420					
gtggctacag	cggcacagcg	actacgcgag	tggttcgga	ccgaccttga	gatgcttggc
480					
ccagctccac	aaccacgccg	tgccagcgaa	tcggaacggg	atcgaattat	cgtgcgtcct
540					
cgtagcacga	tgcctctcgc	cgagctttcc	cagggcttat	ttcggctacg	ttccaaacac
600					
actatgagcc	gcgaaccagg	aagcttacgc	gtggtcacgc	accgggccaa	cttggttgta
660					
ggtcggtagg	cttgcggtgt	gagacttctt	tttgctggta	cccgggacgt	ggccgtccca
720					
acgcttaccg	ccttggtagc	cgatccccgt	cacgaggtag	ctgcgcgtcct	gacgcgtccg
780					
gatgcagcag	taggacggca	ccgtactcca	cgtccatgcc	cggtcgccaa	ggctgccgag
840					
gaactcggta	tccccgccat	taaggcgacc	agcgtgaagt	ccggcgaggg	tcacgatgcc
900					



gtcacttccc tcgatgtcga cgtagccgtc gtcgtagcct acggaggtct cattccccgcc  
960  
gatctgttgg cagtaccacg acacggctgg attaacttac acttttctct cctaccgcga  
1020  
tggcgcgggc ctgctcccat acaacggggc atcatggcgg gggatgagga gacgggagct  
1080  
tgtgtctttc agctagttga aagcctcgat gccggaccg  
1119

<210> 896  
<211> 147  
<212> PRT  
<213> Homo sapiens

<400> 896  
Val Arg Leu Leu Phe Ala Gly Thr Pro Asp Val Ala Val Pro Thr Leu  
1 5 10 15  
Thr Ala Leu Val Ala Asp Pro Arg His Glu Val Ala Ala Val Leu Thr  
20 25 30  
Arg Pro Asp Ala Ala Val Gly Arg His Arg Thr Pro Arg Pro Cys Pro  
35 40 45  
Val Ala Lys Ala Ala Glu Glu Leu Gly Ile Pro Ala Ile Lys Ala Thr  
50 55 60  
Ser Val Lys Ser Gly Glu Gly His Asp Ala Val Thr Ser Leu Asp Val  
65 70 75 80  
Asp Val Ala Val Val Val Ala Tyr Gly Gly Leu Ile Pro Ala Asp Leu  
85 90 95  
Leu Ala Val Pro Arg His Gly Trp Ile Asn Leu His Phe Ser Leu Leu  
100 105 110  
Pro Arg Trp Arg Gly Ala Ala Pro Ile Gln Arg Ala Ile Met Ala Gly  
115 120 125  
Asp Glu Glu Thr Gly Ala Cys Val Phe Gln Leu Val Glu Ser Leu Asp  
130 135 140  
Ala Gly Pro  
145

<210> 897  
<211> 384  
<212> DNA  
<213> Homo sapiens

<400> 897  
gagctcgagg ctggcaagcc ggaagtgccg ctgttcccga cgcccgacgg catgtcgctc  
60  
gacgactacc tcgtccagct gtcgaaggaa gggctcgaga cccgtctcgc gcagctgtat  
120  
ccggtcgaag cccgacgcga cgcgcagcgc gacacctact acaagcgcct cgaattcgag  
180  
tgcgggacca tcacgaagat gggctttccc ggctacttcc tgatcgctgc ggacttcac  
240  
aactgggcaa agaacaacgg cgtgccggtc ggcccggggc gcggctcggg cgccgggttcg  
300  
ctggtcgcgt atgcgctcgg cattaccgat ctgaagtac tgcgctacga cctgctgttc  
360

gagcgcttcc tgaacccgga acgc  
384

<210> 898  
<211> 128  
<212> PRT  
<213> Homo sapiens

<400> 898  
Glu Leu Glu Ala Gly Lys Pro Glu Val Pro Leu Phe Pro Thr Pro Asp  
1 5 10 15  
Gly Met Ser Leu Asp Asp Tyr Leu Val Gln Leu Ser Lys Glu Gly Leu  
20 25 30  
Glu Thr Arg Leu Ala Gln Leu Tyr Pro Val Glu Ala Arg Arg Asp Ala  
35 40 45  
Gln Arg Asp Thr Tyr Tyr Lys Arg Leu Glu Phe Glu Cys Gly Thr Ile  
50 55 60  
Thr Lys Met Gly Phe Pro Gly Tyr Phe Leu Ile Val Ala Asp Phe Ile  
65 70 75 80  
Asn Trp Ala Lys Asn Asn Gly Val Pro Val Gly Pro Gly Arg Gly Ser  
85 90 95  
Gly Ala Gly Ser Leu Val Ala Tyr Ala Leu Gly Ile Thr Asp Leu Glu  
100 105 110  
Val Leu Arg Tyr Asp Leu Leu Phe Glu Arg Phe Leu Asn Pro Glu Arg  
115 120 125

<210> 899  
<211> 6171  
<212> DNA  
<213> Homo sapiens

<400> 899  
ttctccaagg ccttaaactct cagatacttg aatgcatctg caaatagtct ggagtcctta  
60  
ccatccgcct gcactggaga ggagagtttg agtatgctgc agctgcttta tctgaccaac  
120  
aatctcctga cggatcagtg catacctgtc ctggtagggc acctgcacct gcgaatcttg  
180  
caccttgcaa acaatcagtt acagaccttt cctgcaagca aactaaataa attggagcaa  
240  
ttggaggaac tgaacctaaag tggcaacaag cttaaaacca ttcccacaac catagcaaac  
300  
tgtaaaaggc tgcacaccct tgttgcacac tccaacaaca tcagcatttt cccagaaata  
360  
ctgcagttgc ctcagatcca gtttgtagac ctaagttgca acgacttgac agaaatcctg  
420  
attccagagg ctttgctgc tacattacaa gaccttgacc tgactggaaa taaaatctg  
480  
gttctggaac acaagacact ggacatattt agccatatca caaccctgaa aattgatcag  
540  
aaacctttgc caaccacaga ttctacagtt acgtcaacct tctggagcca tggactggct  
600  
gagatggcag ggcagagaaa taagctgtgt gtctcagcac ttgctatgga tagctttgca  
660

gagggggtgg gagctgtgta tggcatgttt gatggagacc gaaatgagga gctcccgcgc  
720  
ctgctgcagt gtacgatggc agatgtgctt ttagaagagg tacagcagtc aactaatgac  
780  
acagttttca tggctaacac cttcttggtta tctcacagga aattaggaat ggctggccag  
840  
aagttgggct cctccgctct cctgtgctac atccgccctg acactgccga tccagcaagt  
900  
agcttttagct tgactgtagc caatgttggc acgtgccaaag cagtccctgtg ccgagggtggg  
960  
aagccagtgc ccctctctaa agtcttcagc ctggagcagg acccagagga ggctcaaagg  
1020  
gtgaaggacc aaaaagccat catcacagag gacaacaaag tgaatgggggt aacctgctgt  
1080  
acccggatgc tgggctgtac atacctctac ccttggatcc tccccaagcc ccacatatct  
1140  
tccactccgc tgaccattca agatgagttg ctgattctgg gaaacaaagc attgtgggaa  
1200  
cacttgctct acacagaagc tgtcaatgct gtacgtcacg tacaagacc attagcagct  
1260  
gctaagaagc tgtgcacatt agcgcagagc tatggctgtc aggacagtgt aggggcgatg  
1320  
gtagtttatt tgaatattgg tgaggaaggc tgcacttgtg aaatgaatgg gctcaccctc  
1380  
ccaggctctg tgggatttgc ttcaaccacc actatcaagg atgcccctaa gccagccact  
1440  
ccatcctcta gcagtgggat tgccctctgag ttcagcagtg agatgtccac ctgagagggt  
1500  
agcagtgaag tgggggtccac tgcttctgat gagcataatg ctggggggcct ggacactgcc  
1560  
ttgcttccga ggccagagcg gcgctgcagc ctccacccaa caccacctc tgggctgttt  
1620  
cagcgccagc cttcttctgc taccttctcc agtaaccagt ctgacaacgg cctggacagt  
1680  
gatgatgacc agcccgttga gggggtcata accaatggca gcaaggtaga ggtggaagta  
1740  
gacatccact gctgcagggg gagggatctg gagaactcac cccctctcat agagagttct  
1800  
cctaccctgt gttctgagga acatgctaga gggctcgtgtt ttgggatccg aagacagaac  
1860  
agtgtgaata gtggcatgct cctgccaatg agcaaggaca ggatggagtt acagaagtct  
1920  
ccctccacct cctgcctcta tgggaagaaa ctctccaatg gctctattgt gcccctagag  
1980  
gacagcctga acctcattga agtggccaca gaagtgccca agaggaaaac tggctatttt  
2040  
gctgccccca ctgagatgga accagaggac cagtttgttg tgcctcatga cctggaagaa  
2100  
gaagtgaagg aacaaatgaa acagcaccag gacagccggc tcgagcctga gccccatgaa  
2160  
gaggatcgga ccgagccccc ggaggagtgc gacacagcac tatgactgcc ccactgggca  
2220  
cagtgtggga ggaggctgtg cagggttggg gtagggactt gctagaggca ttctgcctct  
2280

acatttcttt ttgtttgttc gttttttttt tgtttgtttg ttttgagacg gagtcttgct  
2340  
cagtcgctca ggctggagtg caatggtggg gtctcgggtc actgcagcct ctgtccctgg  
2400  
gttcaagcca ttctcctgtc tcagcctccc gagtagctgg gattacaggc acctgccatt  
2460  
atgcccggct aagttttatt ttttttttta gagacggggg ttcaccatgt tggccaggct  
2520  
gggtgtgaac tcttgacctc aggtgatcca cctcctctg cctcccaaag tgctgtgatt  
2580  
acaggcctca gccaccatgc ccagccctgc gtctacattt ctaaaccata gctgtgtggg  
2640  
gttgaactcg gagccaaaaa gtgtgagagc catcaggggc tggctctgga taaactggta  
2700  
gccactatca gtgttaagtt tcacatttaa cctgcattgg aattcccagg ggtactggga  
2760  
agaaagcagc tgttctgtat cagtcctacc acctgccatt aaccctttct ctctaggat  
2820  
cattttgaga atttgctgc ctgggcagga aagggactat ttctgtggag gaaaaaagt  
2880  
aagattgatt ctctttacta gttgctgctg atggatctct gtgacagaga aatcacctta  
2940  
tctcagacta atgggggtgtg atgtgactag tcacatggct ttccattctt ctctacgaga  
3000  
atacagccta tcaaaatgat gtctgttgga aatgtagaac caatcaaaca gataatttat  
3060  
gtatgtaatg taatgagagc acttttcatt gactgtgaac tttttatttt tgaatctgca  
3120  
ctcgagccaa tcttcttaga ggcagcccg cacccttcac cataggcaga gagagaactg  
3180  
gggtgttgag acttattcga gggatatagga agggccctgt gaagttgatt taacttttgg  
3240  
atgtcagact gtgaaagctc ctgagaaact tggggtaata ggatcttctt ttggggatga  
3300  
aaatggggaa ggcgtgagga cctagactac ttctccctag atcagaaaaa gagaattacc  
3360  
ccttgacaaa tatgatacct gctaggtatt tcccaggga atttagggat tggcctcttt  
3420  
ccctagcatg tggaggaatt ggcagacagc ttcctaaggg cggggagcgg gggcccaagg  
3480  
ccgacactgc ttgcatccac gtgaccttaa gttatggcag atgactctga aacggactga  
3540  
ggccaatgag aacagatgga tggagcactc aggttagact tggtccttct cctatgctgg  
3600  
aggagaggga tggttctcta gaatgttgga ggtgagttga gagctcgcct cttgaatgtt  
3660  
gaacagtgtg ctcttctgaa aactgcatat tcactttatg tggtttcaga atactgggct  
3720  
caatactaac ataagaaaga cacttcattg agaaattctt aagcttacag aaaacctata  
3780  
ctctttgcac attccacata accctagcaa aatgcagttt cttcatactt ctgtcacttt  
3840  
ttccattgga agatttgctt aggaaaatta attcctattt attcccacaa aatgttggca  
3900

ttgcttgatt ttacccaatg gggaatgtgc ttgaatttt tggaacactt ttacaattaa  
3960  
aaataaagta gggccatttt taatttgttt catcagaaac tatgttaaag agagggttaa  
4020  
atataaatat attttcgtgt gtatttttgg gaagattttt gttcaaagca atagtcaaaa  
4080  
tcagatgacc tgtccataat aattatgtgt cttcatcttc tcagaggccc catgctcata  
4140  
tgcacgtgtc attgggatac actcttgggg gatttggtac actctaattg atgtctaattg  
4200  
ttcaaccctt cgagaatctg aacttgagtc cccagattgt caaactactg gtcagctatt  
4260  
gagaatttta gaactcaggt ctttgatttg aagtagggaa catagtggct cacacagagt  
4320  
ttaggtgctg ttagaaagat gggaacaaga gtgttttgcc acctatttt tatatgggaa  
4380  
atttttttta atgaagaaaa aatgaaaatg aaataacagg atgatagtga tgagtgatgt  
4440  
aaaacatctt acttagatgg cagaaccttc gggttgtaga atagtgatgt ctaaaaatta  
4500  
aagttatttt gggaatacac cactttaata gtatagtctt ataaaaatta ttcattatgg  
4560  
tgaacccttc ttgtctgcta ttcgtttccc aacctactta ttggaaccac ctcaaaaccc  
4620  
agttctgaaa tgaccttacc aaaagtaa atgtattttt tttagtcagc agaactctgt  
4680  
aattccaaat gttgttctgt gtggtagaat tttttttcag gaaccattag gttgtattga  
4740  
aaatctttgt tataggcgat accaaaactg attattcttt tttgcagtct gctttaattc  
4800  
atgtccttct gcagttgctc tgtattaaaa cagggtaaaa aggccatagc ccattatgaa  
4860  
aatataata caaaactctt tgacctatga ggtaacttac agacattgtg ttttctaaac  
4920  
aggctgtcag tgaaagcccg tatctgtctc cagggtgaatg taatttactt ccgagtactt  
4980  
taccagagg atgtattccc cagggtgggca gagtacagtt gatctctagc acagacagag  
5040  
attctggcct ctgcatattc tcaggtctct gtgtgtacct ccattgagt agagaagctt  
5100  
aagataattt ctgagagaag aacactgctg attgtgggag cagtttagga gtccatggaa  
5160  
aaaagaaaaa tacatgtgtc ttggcagcca tgggtgattt ttgtccaaat ggattggaag  
5220  
gatatttgaa tatttgaatg ttggtatgac ataaagctgc agtgactat agagtcaagt  
5280  
cattgaatta ccactcctga tacagggtctt tattgtacta ctgtgaagtg tatgtgtgca  
5340  
atacattggg gagttcattt actggtgtac ggaagagcca gcaggagcag cgtggtcatt  
5400  
gctgggtgct attacagttg cttgtagtga gtgctgtttt ccaggagatg gagccagttg  
5460  
ggtgtggcag atctactgaa tatcaaatga tgctcttctt cccatgtaga ccttcagcaa  
5520

aagccggtac ttggaagcca caggctcacc ttctctatct atccaataat tattaatgaa  
 5580  
 gagacctcca taagggagca gctggctggt atcgataaat gtaccaatta ttaaataatt  
 5640  
 agtctccaag ccattcagtg atgtcttcag catcactata ggactgtcta gtgtcacttt  
 5700  
 ttacttcctt ctgggtggag gctttccgac tcccaatcat gaaggcaagt taatctttcc  
 5760  
 agttagtac ttttgcccca tagttggggt aagcacttcc tagattgaga aaaagcagct  
 5820  
 acagtcaatc ctgctctggt tgcctcattt ggtgatcagt cagtcacaca taagttcctt  
 5880  
 gtattctaaa tttcatgcac ttctcccaga tgctataggg tttctctca ctgttgccaa  
 5940  
 tggatgtcat ccagacagtg ggctcatatc ttacgggttt gtgcaatcat tgtcgtattg  
 6000  
 tagtcttaag actcattata gtgtattttt gatatttttg aaatgtgtta aattttttta  
 6060  
 ttcagtaata tgagccagag catgttgcag caaatctatt gtttgtaaaa ataacaataa  
 6120  
 caataataaa taaaataaag tggaatcttt ttcatggctt tgttttaaaa a  
 6171

<210> 900  
 <211> 734  
 <212> PRT  
 <213> Homo sapiens

<400> 900  
 Phe Ser Lys Ala Leu Asn Leu Arg Tyr Leu Asn Ala Ser Ala Asn Ser  
 1 5 10 15  
 Leu Glu Ser Leu Pro Ser Ala Cys Thr Gly Glu Glu Ser Leu Ser Met  
 20 25 30  
 Leu Gln Leu Leu Tyr Leu Thr Asn Asn Leu Leu Thr Asp Gln Cys Ile  
 35 40 45  
 Pro Val Leu Val Gly His Leu His Leu Arg Ile Leu His Leu Ala Asn  
 50 55 60  
 Asn Gln Leu Gln Thr Phe Pro Ala Ser Lys Leu Asn Lys Leu Glu Gln  
 65 70 75 80  
 Leu Glu Glu Leu Asn Leu Ser Gly Asn Lys Leu Lys Thr Ile Pro Thr  
 85 90 95  
 Thr Ile Ala Asn Cys Lys Arg Leu His Thr Leu Val Ala His Ser Asn  
 100 105 110  
 Asn Ile Ser Ile Phe Pro Glu Ile Leu Gln Leu Pro Gln Ile Gln Phe  
 115 120 125  
 Val Asp Leu Ser Cys Asn Asp Leu Thr Glu Ile Leu Ile Pro Glu Ala  
 130 135 140  
 Leu Pro Ala Thr Leu Gln Asp Leu Asp Leu Thr Gly Asn Thr Asn Leu  
 145 150 155 160  
 Val Leu Glu His Lys Thr Leu Asp Ile Phe Ser His Ile Thr Thr Leu  
 165 170 175  
 Lys Ile Asp Gln Lys Pro Leu Pro Thr Thr Asp Ser Thr Val Thr Ser  
 180 185 190  
 Thr Phe Trp Ser His Gly Leu Ala Glu Met Ala Gly Gln Arg Asn Lys

913



```

625          630          635          640
Pro Ser Thr Ser Cys Leu Tyr Gly Lys Lys Leu Ser Asn Gly Ser Ile
          645          650          655
Val Pro Leu Glu Asp Ser Leu Asn Leu Ile Glu Val Ala Thr Glu Val
          660          665          670
Pro Lys Arg Lys Thr Gly Tyr Phe Ala Ala Pro Thr Gln Met Glu Pro
          675          680          685
Glu Asp Gln Phe Val Val Pro His Asp Leu Glu Glu Glu Val Lys Glu
          690          695          700
Gln Met Lys Gln His Gln Asp Ser Arg Leu Glu Pro Glu Pro His Glu
705          710          715          720
Glu Asp Arg Thr Glu Pro Pro Glu Glu Phe Asp Thr Ala Leu
          725          730

```

<210> 901  
 <211> 309  
 <212> DNA  
 <213> Homo sapiens

<400> 901  
 tcatgatcca cctgcctcgg cctcccaaag tgctgggatt acatacagat ggcaaacttc  
 60  
 atttcctttt tctcttaatg caacaagggtc atcccaagat caggcttcct tcagtttctg  
 120  
 tggtaagtag tgatggacac ttatggagtt ttcagagact tatgcattgg gtaacaaggc  
 180  
 actgcaagag accccagata gcacagcatc atctcacatt tacaccacat cacatcaaca  
 240  
 tcgatgctag gaggtctaaa gctgatgccca ccttcagagc tgcaagtatc caaaagactc  
 300  
 cactcatga  
 309

<210> 902  
 <211> 102  
 <212> PRT  
 <213> Homo sapiens

<400> 902  
 Met Ile His Leu Pro Arg Pro Pro Lys Val Leu Gly Leu His Thr Asp  
 1 5 10 15  
 Gly Lys Leu His Phe Leu Phe Leu Leu Met Gln Gln Gly His Pro Lys  
 20 25 30  
 Ile Arg Leu Pro Ser Val Ser Val Val Ser Ser Asp Gly His Leu Trp  
 35 40 45  
 Ser Phe Gln Arg Leu Met His Trp Val Thr Arg His Cys Lys Arg Pro  
 50 55 60  
 Gln Ile Ala Gln His His Leu Thr Phe Thr Pro His His Ile Asn Ile  
 65 70 75 80  
 Asp Ala Arg Arg Ser Lys Ala Asp Ala Thr Phe Arg Ala Ala Ser Ile  
 85 90 95  
 Gln Lys Thr Pro Leu Met  
 100



<210> 903  
<211> 349  
<212> DNA  
<213> Homo sapiens

<400> 903  
agatcttagt gaaaactgga agcaggaaga ataagttagt catggaagcc actttggctc  
60  
taagggcttt gatggcctca tgggttgaca ggaacagaag acaaagacta gggcccaccc  
120  
aaggtgtgaa gtctaataagg aaaccttttc tccataaggc tacaatgggt ctaccaaaaa  
180  
taaaaccatg ccaccccagg gactgcagcc caattttata tcaccatgag gtccaaaaaa  
240  
ttccaagctg tgaatttagt ttcaaatggc cttggtctcc agtatcccta gccatgtggc  
300  
aaaaacaaac aattctcttt ggaggataca tctttatctt aagacttgn  
349

<210> 904  
<211> 102  
<212> PRT  
<213> Homo sapiens

<400> 904  
Met Glu Ala Thr Leu Ala Leu Arg Ala Leu Met Ala Ser Trp Val Asp  
1 5 10 15  
Arg Asn Arg Arg Gln Arg Leu Gly Pro Thr Gln Gly Val Lys Ser Asn  
20 25 30  
Arg Lys Pro Phe Leu His Lys Ala Thr Met Gly Leu Pro Lys Ile Lys  
35 40 45  
Pro Cys His Pro Arg Asp Cys Ser Pro Ile Leu Tyr His His Glu Val  
50 55 60  
Gln Lys Ile Pro Ser Cys Glu Phe Ser Phe Lys Trp Pro Trp Ser Pro  
65 70 75 80  
Val Ser Leu Ala Met Trp Gln Lys Gln Thr Ile Leu Phe Gly Gly Tyr  
85 90 95  
Ile Phe Ile Leu Arg Leu  
100

<210> 905  
<211> 377  
<212> DNA  
<213> Homo sapiens

<400> 905  
nntccggaac cggtggtgtg gaccgagcac gattctcacc tagctcacc ggatcagcgt  
60  
ctcaacgaag acatcattat cgcgggtgac cgggcagacg cggtgattag cgtatcccag  
120  
gggctctgcg acaggctggc tggacatggc gtgacctcaa cggtgggttcc caacatcggt  
180  
gacgtcgagc tgtttgaccg tcctgatcga cgacatgagg ggacgatcgt cgtcagcgtc  
240

gccaccctca acccgggaaa gggcatgatt gagttagctc aggctgttga gcgtcttccc  
300  
gaggttcagt tgagaatcat cggagatgga ccgcagcggc accaactgga ggccattgcc  
360  
gctgataatc cacgcgt  
377

<210> 906  
<211> 125  
<212> PRT  
<213> Homo sapiens

<400> 906  
Xaa Pro Glu Pro Val Val Trp Thr Glu His Asp Ser His Leu Ala His  
1 5 10 15  
Pro Asp Gln Arg Leu Asn Glu Asp Ile Ile Ile Ala Gly Asp Arg Ala  
20 25 30  
Asp Ala Val Ile Ser Val Ser Gln Gly Leu Cys Asp Arg Leu Ala Gly  
35 40 45  
His Gly Val Thr Ser Thr Val Val Pro Asn Ile Val Asp Val Glu Leu  
50 55 60  
Phe Asp Arg Pro Asp Arg Arg His Glu Gly Thr Ile Val Val Ser Val  
65 70 75 80  
Ala Thr Leu Asn Pro Gly Lys Gly Met Ile Glu Leu Ala Gln Ala Val  
85 90 95  
Glu Arg Leu Pro Glu Val Gln Leu Arg Ile Ile Gly Asp Gly Pro Gln  
100 105 110  
Arg His Gln Leu Glu Ala Ile Ala Ala Asp Asn Pro Arg  
115 120 125

<210> 907  
<211> 332  
<212> DNA  
<213> Homo sapiens

<400> 907  
acgcgtagga tgatgaagtc cgtcactgga tcgttcttgg gtggcaaccg ggaagtcggt  
60  
gaccagttct tcaacggcga ggttcaactg aaccttgtgc cgcaggggtac attcgccgag  
120  
cgcattegtg ccggcgctgc tggattgca gcattcttca cgcctactgg ctatggtaca  
180  
gccgtgcaga agggtgagct tgttcttaag tatgaaaaga aggacggtaa ggctgtgcca  
240  
gtcatgacgt ccaagccgcg tgaagtgcgc tcgtttgacg gccgtgacta tataatagaa  
300  
gaggtratta aggatgaata ggatatggtg aa  
332

<210> 908  
<211> 106  
<212> PRT  
<213> Homo sapiens

&lt;400&gt; 908

```

Thr Arg Arg Met Met Lys Ser Val Thr Gly Ser Phe Leu Gly Gly Asn
 1           5           10           15
Arg Glu Val Gly Asp Gln Phe Phe Asn Gly Glu Val Gln Leu Asn Leu
           20           25           30
Val Pro Gln Gly Thr Phe Ala Glu Arg Ile Arg Ala Gly Ala Ala Gly
           35           40           45
Ile Ala Ala Phe Phe Thr Pro Thr Gly Tyr Gly Thr Ala Val Gln Lys
           50           55           60
Gly Glu Leu Val Leu Lys Tyr Glu Lys Lys Asp Gly Lys Ala Val Pro
65           70           75           80
Val Met Thr Ser Lys Pro Arg Glu Val Arg Ser Phe Asp Gly Arg Asp
           85           90           95
Tyr Ile Ile Glu Glu Val Ile Lys Asp Glu
           100           105

```

&lt;210&gt; 909

&lt;211&gt; 318

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 909

```

acgcgctcggg catggcagct gtacagatct atcgcgctcag cagggcctac gcacacatga
60
tgccgcaggg gcaccgacgc tgctgccatc aaaagagccg cctcgcgccc gcagcgcctc
120
ccagggacgg cgactcacgt ggctcgacac gcgcgcgcga gtcgcgtggg tgtgtcacgc
180
cccttttttt cccaccccaa caccgaaccg gcggggccatg gctgaggatt cgcaccccat
240
tcgctccggc ttgcgcatgc tcaagcgtc ctggagctcg aatgagaatg taccgccgcc
300
acaaagctcg ccgccggc
318

```

&lt;210&gt; 910

&lt;211&gt; 102

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 910

```

Met Ala Ala Val Gln Ile Tyr Arg Val Ser Arg Ala Tyr Ala His Met
 1           5           10           15
Met Pro Gln Gly His Arg Arg Cys Arg His Gln Lys Ser Arg Leu Ala
           20           25           30
Pro Ala Ala Pro Pro Arg Asp Gly Asp Ser Arg Gly Ser Thr Arg Ala
           35           40           45
Arg Glu Ser Arg Gly Cys Val Thr Pro Leu Phe Phe Pro Pro Gln His
           50           55           60
Arg Thr Gly Gly Pro Trp Leu Arg Ile Arg Thr Pro Phe Ala Pro Ala
65           70           75           80
Cys Ala Cys Ser Ser Ala Pro Gly Ala Arg Met Arg Met Tyr Arg Arg
           85           90           95
His Lys Ala Arg Arg Arg

```

100

<210> 911  
 <211> 506  
 <212> DNA  
 <213> Homo sapiens

<400> 911  
 acgcgtgtgc agcactctcc acaagctggc cccaatcact ttgcatcaa attggtacag  
 60  
 caaccttatg aggctggcct tgggggaacc ctgttttagg gatgagctga acttaccggg  
 120  
 aggctgcatg cgagggttgg gtgaaatgca tatctggctt tgtagctggc cggtcacct  
 180  
 ctgggggttg cacaggggag ggggttctgc catggctaga atgcgctaag ggggtgaaac  
 240  
 gaagcctgct gggcccgga accacagagc agcctggcct ttgaaggaga ccctgtggca  
 300  
 cccctgccc accccaagt ccagccattt cacttcctg gagatgggtgc aaagcaagaa  
 360  
 aaaaaaaaa atccagtgtt ctcaggtcag ccttcacca gccaggattc atcgtctgat  
 420  
 ctgtttgggg agagagcatg gagtgggtgga gatgggttgg gcccagtggt tttctgatta  
 480  
 actcgcagtt cacctgaaac attttg  
 506

<210> 912  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

<400> 912  
 Met Phe Gln Val Asn Cys Glu Leu Ile Arg Lys His Trp Gly Pro Thr  
 1 5 10 15  
 His Leu His His Ser Met Leu Ser Pro Gln Thr Asp Gln Thr Met Asn  
 20 25 30  
 Pro Gly Trp Trp Lys Ala Asp Leu Arg Thr Leu Asp Phe Phe Phe Phe  
 35 40 45  
 Leu Ala Leu His His Leu Gln Gly Ser Glu Met Ala Gly Leu Gly Gly  
 50 55 60  
 Gly Gln Gly Val Pro Gln Gly Leu Leu Gln Arg Pro Gly Cys Ser Val  
 65 70 75 80  
 Val Pro Gly Pro Ser Arg Leu Arg Phe His Pro Leu Ala His Ser Ser  
 85 90 95  
 His Gly Arg Thr Pro Ala Pro Val Pro Thr Pro Glu Val Ser Arg Pro  
 100 105 110  
 Ala Thr Lys Pro Asp Met His Phe Thr Pro Thr Ser His Ala Ala Ser  
 115 120 125  
 Arg

<210> 913  
 <211> 339

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 913

cgcttcatgg cgtgggttcag gcgtacgggt ccggctactg gtgactaccg tggcacgaaa  
 60  
 tttttcgttc gcgagaacgg taaaaccctc gcaacctcga tgttcatggg ttgtgtcgcc  
 120  
 ctgggcgcca cggacctgct ttctgccttc gactcgatcc cggcgctccta tggtttcacc  
 180  
 aacgaggggt accttatact taccgctaac gtctttgctc tcatggggctt gcgtcagttg  
 240  
 tatttcctta ttggaagcct gttggaacgt ctggtgtact tgctcgctggg actggtcgtg  
 300  
 attttgggct ttatcgccct caagctcatt ggccacgcg  
 339

&lt;210&gt; 914

&lt;211&gt; 113

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 914

Arg	Phe	Met	Ala	Trp	Phe	Arg	Arg	Thr	Val	Pro	Ala	Thr	Gly	Asp	Tyr
1				5					10					15	
Arg	Gly	Thr	Lys	Phe	Phe	Val	Arg	Glu	Asn	Gly	Lys	Thr	Leu	Ala	Thr
			20					25					30		
Ser	Met	Phe	Met	Val	Cys	Val	Ala	Leu	Gly	Ala	Thr	Asp	Leu	Leu	Phe
		35					40					45			
Ala	Leu	Asp	Ser	Ile	Pro	Ala	Ser	Tyr	Gly	Phe	Thr	Asn	Glu	Gly	Tyr
	50					55					60				
Leu	Ile	Leu	Thr	Ala	Asn	Val	Phe	Ala	Leu	Met	Gly	Leu	Arg	Gln	Leu
65					70				75					80	
Tyr	Phe	Leu	Ile	Gly	Ser	Leu	Leu	Glu	Arg	Leu	Val	Tyr	Leu	Ser	Leu
			85					90					95		
Gly	Leu	Val	Val	Ile	Leu	Gly	Phe	Ile	Ala	Leu	Lys	Leu	Ile	Gly	His
			100					105					110		

Ala

&lt;210&gt; 915

&lt;211&gt; 663

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 915

nnggtacctg tcaatcagta tgtaaaccctc actttatgtc gtgggttatcc acttcctgat  
 60  
 gacagtgaag atcctgttgt ggacattggt gctgctaccc ctgtcatcaa tggacagtca  
 120  
 ttaaccaagg gagagacttg catgaatcct caggatttta agccaggagc aatgggtctg  
 180  
 gagcagaatg gaaaatcggg acacactttg actggtgatg gtctcaatgg accatcagat  
 240

gcaagtgagc agagagtatc catggcatcg tcaggcagct cccagcctga actagtgact  
 300  
 atccctttga ttaagggccc taaagggttt gggtttgcaa ttgctgacag ccctactgga  
 360  
 cagaaggtga aaatgatact ggatagtcag tgggtgtcaag gccttcagaa aggagatata  
 420  
 attaaggaaa tataccatca aaatgtgcag aatttaacac atctccaagt ggtagagggtg  
 480  
 ctaaagcagt ttccagtagg tgctgatgta ccattgctta tcttaagagg aggtccccct  
 540  
 tcaccaacca aaagtgcaca aatgaaaaca gataaaaagg aaaatgcagg aagtttggag  
 600  
 gccataaatg agcctattcc tcagcctatg ccttttccac cgagcattat cagggtcagga  
 660  
 tcc  
 663

<210> 916  
 <211> 221  
 <212> PRT  
 <213> Homo sapiens

<400> 916  
 Xaa Val Pro Val Asn Gln Tyr Val Asn Leu Thr Leu Cys Arg Gly Tyr  
 1 5 10 15  
 Pro Leu Pro Asp Asp Ser Glu Asp Pro Val Val Asp Ile Val Ala Ala  
 20 25 30  
 Thr Pro Val Ile Asn Gly Gln Ser Leu Thr Lys Gly Glu Thr Cys Met  
 35 40 45  
 Asn Pro Gln Asp Phe Lys Pro Gly Ala Met Val Leu Glu Gln Asn Gly  
 50 55 60  
 Lys Ser Gly His Thr Leu Thr Gly Asp Gly Leu Asn Gly Pro Ser Asp  
 65 70 75 80  
 Ala Ser Glu Gln Arg Val Ser Met Ala Ser Ser Gly Ser Ser Gln Pro  
 85 90 95  
 Glu Leu Val Thr Ile Pro Leu Ile Lys Gly Pro Lys Gly Phe Gly Phe  
 100 105 110  
 Ala Ile Ala Asp Ser Pro Thr Gly Gln Lys Val Lys Met Ile Leu Asp  
 115 120 125  
 Ser Gln Trp Cys Gln Gly Leu Gln Lys Gly Asp Ile Ile Lys Glu Ile  
 130 135 140  
 Tyr His Gln Asn Val Gln Asn Leu Thr His Leu Gln Val Val Glu Val  
 145 150 155 160  
 Leu Lys Gln Phe Pro Val Gly Ala Asp Val Pro Leu Leu Ile Leu Arg  
 165 170 175  
 Gly Gly Pro Pro Ser Pro Thr Lys Ser Ala Lys Met Lys Thr Asp Lys  
 180 185 190  
 Lys Glu Asn Ala Gly Ser Leu Glu Ala Ile Asn Glu Pro Ile Pro Gln  
 195 200 205  
 Pro Met Pro Phe Pro Pro Ser Ile Ile Arg Ser Gly Ser  
 210 215 220

<210> 917  
 <211> 615

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 917

atcgtggacc agaagttccc tgagtgtggc ttctacggcc ttacgacaa gatcctgctt  
 60  
 ttcaaacaatg accccacgtc ggccaacctc ctgcagctgg tgcgctcgtc cggagacatc  
 120  
 caggagggcg acctgggtgga ggtgggtgctg tcggcctcgg ccaccttcga ggacttccag  
 180  
 atccgcccgc acgccctcac ggtgcactcc tatcggggcg ctgccttctg tgatcactgc  
 240  
 ggggagatgc tcttcggcct agtgcgccag ggcctcaagt gcgatggctg cgggctgaac  
 300  
 taccacaagc gctgtgcctt cagcatcccc aacaactgta gtggggcccg caaacggcgc  
 360  
 ctgtcatcca cgtctctggc cagtggccac tcggtgcgcc tcggcacctc cgagtccttg  
 420  
 ccctgcacgg ctgaagagga gccgtagcac caccgaactc ctgcctcgcc gtccccgtca  
 480  
 tcctcttctt cctcttctgc ctcatcgat acggggccgc ccattgagct ggacaagatg  
 540  
 ctgctctcca aggtcaaggt gccgcacacc ttctcatcc acagctatac acggcccacc  
 600  
 gtttgccagg cttgc  
 615

&lt;210&gt; 918

&lt;211&gt; 148

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 918

Ile	Val	Asp	Gln	Lys	Phe	Pro	Glu	Cys	Gly	Phe	Tyr	Gly	Leu	Tyr	Asp	1	5	10	15
Lys	Ile	Leu	Leu	Phe	Lys	His	Asp	Pro	Thr	Ser	Ala	Asn	Leu	Leu	Gln	20	25	30	
Leu	Val	Arg	Ser	Ser	Gly	Asp	Ile	Gln	Glu	Gly	Asp	Leu	Val	Glu	Val	35	40	45	
Val	Leu	Ser	Ala	Ser	Ala	Thr	Phe	Glu	Asp	Phe	Gln	Ile	Arg	Pro	His	50	55	60	
Ala	Leu	Thr	Val	His	Ser	Tyr	Arg	Ala	Pro	Ala	Phe	Cys	Asp	His	Cys	65	70	75	80
Gly	Glu	Met	Leu	Phe	Gly	Leu	Val	Arg	Gln	Gly	Leu	Lys	Cys	Asp	Gly	85	90	95	
Cys	Gly	Leu	Asn	Tyr	His	Lys	Arg	Cys	Ala	Phe	Ser	Ile	Pro	Asn	Asn	100	105	110	
Cys	Ser	Gly	Ala	Arg	Lys	Arg	Arg	Leu	Ser	Ser	Thr	Ser	Leu	Ala	Ser	115	120	125	
Gly	His	Ser	Val	Arg	Leu	Gly	Thr	Ser	Glu	Ser	Leu	Pro	Cys	Thr	Ala	130	135	140	
Glu	Glu	Glu	Pro																

145

<210> 919  
 <211> 294  
 <212> DNA  
 <213> Homo sapiens

<400> 919  
 accggtatgc gtccgctggc tgtgctcggc gacaacatca ccaccgacca tctatcgccg  
 60  
 acaaatgcga tcctgctcga tagcgcagcg ggtgagtacc tcgccaagat gggcccgccg  
 120  
 gaagaagact tcatttcgaa cgcgacccat cgtggcgatc acctgaccgc acagcgcgcc  
 180  
 accttcgcca acccgacctt gctcaacgag atggccgtag tcgatgggtga agtgaagaaa  
 240  
 ggctcgcttg cccgcgtgga accggaaggc catgtgatgc gcatgtggga agcc  
 294

<210> 920  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

<400> 920  
 Thr Gly Met Arg Pro Leu Ala Val Leu Gly Asp Asn Ile Thr Thr Asp  
 1 5 10 15  
 His Leu Ser Pro Thr Asn Ala Ile Leu Leu Asp Ser Ala Ala Gly Glu  
 20 25 30  
 Tyr Leu Ala Lys Met Gly Pro Pro Glu Glu Asp Phe Ile Ser Asn Ala  
 35 40 45  
 Thr His Arg Gly Asp His Leu Thr Ala Gln Arg Ala Thr Phe Ala Asn  
 50 55 60  
 Pro Thr Leu Leu Asn Glu Met Ala Val Val Asp Gly Glu Val Lys Lys  
 65 70 75 80  
 Gly Ser Leu Ala Arg Val Glu Pro Glu Gly His Val Met Arg Met Trp  
 85 90 95  
 Glu Ala

<210> 921  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<400> 921  
 acgcgtttgc gcatcgcttt gaccgggtctg acgatggctg agtacttccg cgatgttcag  
 60  
 aaccaggacg tgctgttggt catcgacaac atcttccggt tctcccaggc tggttctgag  
 120  
 gtttcaaccc tgctaggtcg tatgccctcg gcggtgggct accagcccaa cttggccgac  
 180  
 gagatgggccc aattgcagga gcgaatcacc tcgaccctg gtcactccat cacctcgatg  
 240  
 caggccgtct acgtccccgc tgacgattac accgaccggt ctccggcgac gaccttcgcc  
 300



cacctggatg ccaccacgga gctttctcgt gagattgcct ctcgtaggcct gtaccceggcc  
360

gtggatccgc tggcgtcg  
378

<210> 922

<211> 126

<212> PRT

<213> Homo sapiens

<400> 922

Thr	Arg	Leu	Arg	Ile	Ala	Leu	Thr	Gly	Leu	Thr	Met	Ala	Glu	Tyr	Phe
1				5				10						15	
Arg	Asp	Val	Gln	Asn	Gln	Asp	Val	Leu	Leu	Phe	Ile	Asp	Asn	Ile	Phe
			20					25					30		
Arg	Phe	Ser	Gln	Ala	Gly	Ser	Glu	Val	Ser	Thr	Leu	Leu	Gly	Arg	Met
		35				40						45			
Pro	Ser	Ala	Val	Gly	Tyr	Gln	Pro	Asn	Leu	Ala	Asp	Glu	Met	Gly	Gln
	50					55					60				
Leu	Gln	Glu	Arg	Ile	Thr	Ser	Thr	Arg	Gly	His	Ser	Ile	Thr	Ser	Met
65				70					75					80	
Gln	Ala	Val	Tyr	Val	Pro	Ala	Asp	Asp	Tyr	Thr	Asp	Pro	Ala	Pro	Ala
			85					90					95		
Thr	Thr	Phe	Ala	His	Leu	Asp	Ala	Thr	Thr	Glu	Leu	Ser	Arg	Glu	Ile
			100					105					110		
Ala	Ser	Arg	Gly	Leu	Tyr	Pro	Ala	Val	Asp	Pro	Leu	Ala	Ser		
			115					120					125		

<210> 923

<211> 571

<212> DNA

<213> Homo sapiens

<400> 923

accggtatcg aactgccgca agacacgggc aagcatgtcg ccgacgaaca actgcaacgc  
60  
ctggacaccg cgctggagca cgtgcgcgga gaaatccgca ttaccctgga gcatgcacgc  
120  
caacgcaaga atgtcgaaga agaagacatc ttcgccgccc accttgcgct attggaagac  
180  
cccacgctgc tggacgccgc cactggtgcc atcgaacacg gcagcgccgc caccacgcc  
240  
tggcgcgatg caatccaggc gcaatgcgcc gtggtgctgg ccctgggcaa accgctgttt  
300  
gccgagcgcg ccaacgacct gcgcgatctg caacagcgag tactgcgtgc gctggtgggg  
360  
gaagcctggc atttcgaatt gccggccggg ccgattttca ggnnggccat taacttacct  
420  
ccttccgcct tgttgcaact gagtgcccaa aacgccgtgg gtatttgcat ggccgaaggc  
480  
ggcgctacgt ctacgctgc gattttggcc cgaggcaaag gcttgccgtg cgtggtcgcg  
540  
ctgggcgccg aagtgctcga cgtgccccaa g  
571

<210> 924  
 <211> 190  
 <212> PRT  
 <213> Homo sapiens

<400> 924  
 Thr Gly Ile Glu Leu Pro Gln Asp Thr Gly Lys His Val Ala Asp Glu  
 1 5 10 15  
 Gln Leu Gln Arg Leu Asp Thr Ala Leu Glu His Val Arg Gly Glu Ile  
 20 25 30  
 Arg Ile Thr Leu Glu His Ala Arg Gln Arg Lys Asn Val Glu Glu Glu  
 35 40 45  
 Asp Ile Phe Ala Ala His Leu Ala Leu Leu Glu Asp Pro Thr Leu Leu  
 50 55 60  
 Asp Ala Ala Thr Gly Ala Ile Glu His Gly Ser Ala Ala Thr His Ala  
 65 70 75 80  
 Trp Arg Asp Ala Ile Gln Ala Gln Cys Ala Val Leu Leu Ala Leu Gly  
 85 90 95  
 Lys Pro Leu Phe Ala Glu Arg Ala Asn Asp Leu Arg Asp Leu Gln Gln  
 100 105 110  
 Arg Val Leu Arg Ala Leu Leu Gly Glu Ala Trp His Phe Glu Leu Pro  
 115 120 125  
 Ala Gly Pro Ile Phe Arg Xaa Ala Ile Asn Leu Pro Pro Ser Ala Leu  
 130 135 140  
 Leu Gln Leu Ser Ala Gln Asn Ala Val Gly Ile Cys Met Ala Glu Gly  
 145 150 155 160  
 Gly Ala Thr Ser His Val Ala Ile Leu Ala Arg Gly Lys Gly Leu Pro  
 165 170 175  
 Cys Val Val Ala Leu Gly Ala Glu Val Leu Asp Val Pro Gln  
 180 185 190

<210> 925  
 <211> 620  
 <212> DNA  
 <213> Homo sapiens

<400> 925  
 acgcgtgcac tgtgtgtatg catggtaacg tacacgtgtg cactgtgtgt ggtgtgcatg  
 60  
 ncatgggtgtg tgcacgtgtg cnactgtgtg tgcattggtaa tgtgcacgtg tgcactgtgt  
 120  
 gtgggtgtgta tgcattggtgt gtgcacgtgt gcactgtgtg tgtgtgtatg catgtgtgtg  
 180  
 cacgtgtgcc tgtgtgtatg catggtaatg tgcgtgtgca ctgtgtgggtg tgtatgcatg  
 240  
 tgtgtgcacg tgtgcactgt gtatgcatag tgtgtgcacg tgtgcactgt gtgtggatgc  
 300  
 atggtaatgt gcacgtgtgc actgtgtgtg gtgtgtatga tgggtgtgtgc acgtgtgcac  
 360  
 ggtgtgtgggt gtgtatgcat gtgtgtgcac gtgtgcactg tgtggcaggg gtgtttgggtg  
 420  
 tgtgtgcatg tatgcatggt gtgtgcatac gtgtgcagca gcacctggtc ccatctccag  
 480

tgcccagcag catcacacgc actttggtgc ttataaatg catgggtcagt gaggctgcca  
 540  
 gcaccaagct gtccctttac cataacacct ggaatagtca cctgtgataa gctatcacat  
 600  
 aggaaacatt tttaaaattt  
 620

<210> 926  
 <211> 89  
 <212> PRT  
 <213> Homo sapiens

<400> 926  
 Thr Arg Ala Leu Cys Val Cys Met Val Thr Tyr Thr Cys Ala Leu Cys  
 1 5 10 15  
 Val Val Cys Met Xaa Trp Cys Val His Val Cys Xaa Cys Val Cys Met  
 20 25 30  
 Val Met Cys Thr Cys Ala Leu Cys Val Val Cys Met His Gly Val Cys  
 35 40 45  
 Thr Cys Ala Leu Cys Val Cys Val Cys Met Cys Val His Val Cys Leu  
 50 55 60  
 Cys Val Cys Met Val Met Cys Val Cys Thr Val Trp Cys Val Cys Met  
 65 70 75 80  
 Cys Val His Val Cys Thr Val Tyr Ala  
 85

<210> 927  
 <211> 360  
 <212> DNA  
 <213> Homo sapiens

<400> 927  
 gtgcacactc tggaagccac aggatggagc tcctagagat agtgaggcat gaccagaggg  
 60  
 aagaggcatt tggggctctg ttcagatcat tccaacagca aaccgggcat ggagacccca  
 120  
 tctcaggtct gtgcttctct gggggccacc cagccatcct gccaccagc tcagaggcag  
 180  
 ggacaaagcc ctcccaagag gcagcaggca gcaagggcca gccagcgagc tggggacagg  
 240  
 caggtacaac ctggaaaccc caaaggaccc cagatggcaa tgtgacacgg cccatccacc  
 300  
 aagcacctgt aatgccggct tcccacagag gcgagccaga tcctggcact attctttaag  
 360

<210> 928  
 <211> 111  
 <212> PRT  
 <213> Homo sapiens

<400> 928  
 Met Glu Leu Leu Glu Ile Val Arg His Asp Gln Arg Glu Glu Ala Phe  
 1 5 10 15  
 Gly Val Leu Phe Arg Ser Phe Gln Gln Gln Thr Gly His Gly Asp Pro

```
<210> 929
<211> 2340
<212> DNA
<213> Homo sapiens
```

<400> 929  
nnctccccag ggccgagtc tccggagtc gcagagagcc tggatggatc acaggaggat  
60  
aagcctcggg gctcatgtgc ggagcccact ttactgata cggaatggg ggctcacata  
120  
aacaacagcc ggctcaaggc caagggcgtg ggccagcacg acaacgccc gaactttggg  
180  
aaccagagct ttgaggagct gcgagcagcc tgtctaagaa agggggagct ctcgaggac  
240  
cccttattcc ctgctgaacc cagctcactg ggcttcaagg acctgggccc caactccaaa  
300  
aatgtgcaga acatctcctg gcagcggccc aaggatatca taaacaacc tctattcatc  
360  
atggatggga tttctccaac agacatctgc caggggatcc tcggggactg ctggctgctg  
420  
gctgccatcg gctcccttac cacctgcccc aaactgctat accgcgtggg gccagagga  
480  
cagagcttca agaaaaacta tgctggcatc ttccattttc agatttggca gtttggacag  
540  
tgggtgaacg tgggtggtaga tgaccggctg cccacaaaga atgacaagct ggtgtttgtg  
600  
cactcaaccg aacgcagtga gttctggagt gccctgctgg agaaggcgta tgccaagctg  
660  
agtgggtcct atgaagcatt gtcagggggc agtaccatgg agggccttga ggacttcaca  
720  
ggaggcgtgg cccagagctt ccaactccag agggcccctc agaacctgct caggctcctt  
780  
aggaaggccg tggagcgatc ctccctcatg ggttgctcca ttgaagtcac cagtgatagt  
840  
gaactggaat ccatgactga caagatgctg gtgagagggc acgcttactc tgtgactggc  
900  
cttcaggatg tccactacag aggcaaaatg gaaacactga ttcgggtccg gaatccctgg  
960  
ggccggattg agtggaatgg agcttggagt gacagtgccg gggagtggga agaggtggcc  
1020  
tcagacatcc agatgcagct gctgcacaag acggaggacg gggagtctct gatgtcctac  
1080

caagatttcc tgaacaactt cacgctcctg gagatctgca acctcacgcc tgatacactc  
 1140  
 tctggggact acaagagcta ctggcacacc accttctacg agggcagctg gcgcagaggc  
 1200  
 agctccgcag ggggctgcag gaaccaccct ggcacgttct ggaccaaccc ccagttaaag  
 1260  
 atctctcttc ctgaggggga tgaccagag gatgacgcag agggcaatgt tgtgggtctgc  
 1320  
 acctgctgg tggccctaata gcagaagaac tggcggcatg cacggcagca gggagcccag  
 1380  
 ctgcagacca ttggctttgt cctctacgcg gtcccaaaag agtttcagaa cattcaggat  
 1440  
 gtccacttga agaaggaatt cttcacgaag tatcaggacc acggcttctc agagatcttc  
 1500  
 accaactcac gggagggtgag cagccaactc cggctgcctc cgggggaata tatcattatt  
 1560  
 cctccacct ttgagccaca cagagatgct gacttctgc ttcgggtctt caccgagaag  
 1620  
 cacagcgagt catgggaatt ggatgaagtc aactatgctg agcaactcca agaggaaaag  
 1680  
 gtctctgagg atgacatgga ccaggacttc ctacatttgt ttaagatagt ggcaggagag  
 1740  
 ggcaaggaga taggggtgta tgagctccag aggctgctca acaggatggc catcaaattc  
 1800  
 aaaagcttca agaccaaggg ctttggcctg gatgcttgcc gctgcatgat caacctcatg  
 1860  
 gataaagatg gctctggcaa gctggggctt ctagagttca agatcctgtg gaaaaaactc  
 1920  
 aagaaatgga tggacatctt cagagagtgt gaccaggacc attcaggcac cttgaactcc  
 1980  
 tatgagatgc gcctgggttat tgagaaagca ggcataaagc tgaacaacaa ggtaatgcag  
 2040  
 gtcttggtgg ccaggatatgc agatgatggc ctgatcatag actttgacag cttcatcagc  
 2100  
 tgtttctga ggctaaagac catgttcaca ttctttctaa ccatggaccc caagaatact  
 2160  
 ggccatattt gcttgagcct ggaacagtgg ctgcagatga ccatgtgggg atagaggcgc  
 2220  
 tgtaggagcc tggatcatctc taccagcagc agcagcagcg aggttctagc ccaggagggt  
 2280  
 ggggtgcttc ttgtagccct cagctctcca gtctctgctg atgaaatggg atccagggtg  
 2340

&lt;210&gt; 930

&lt;211&gt; 702

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 930

Met	Val	Ala	His	Ile	Asn	Asn	Ser	Arg	Leu	Lys	Ala	Lys	Gly	Val	Gly
1				5					10					15	
Gln	His	Asp	Asn	Ala	Gln	Asn	Phe	Gly	Asn	Gln	Ser	Phe	Glu	Glu	Leu
			20					25					30		
Arg	Ala	Ala	Cys	Leu	Arg	Lys	Gly	Glu	Leu	Phe	Glu	Asp	Pro	Leu	Phe

928

465                                      470                                      475                                      480  
 Glu Tyr Ile Ile Ile Pro Ser Thr Phe Glu Pro His Arg Asp Ala Asp  
    485                                      490                                      495  
 Phe Leu Leu Arg Val Phe Thr Glu Lys His Ser Glu Ser Trp Glu Leu  
    500                                      505                                      510  
 Asp Glu Val Asn Tyr Ala Glu Gln Leu Gln Glu Glu Lys Val Ser Glu  
    515                                      520                                      525  
 Asp Asp Met Asp Gln Asp Phe Leu His Leu Phe Lys Ile Val Ala Gly  
    530                                      535                                      540  
 Glu Gly Lys Glu Ile Gly Val Tyr Glu Leu Gln Arg Leu Leu Asn Arg  
 545                                      550                                      555                                      560  
 Met Ala Ile Lys Phe Lys Ser Phe Lys Thr Lys Gly Phe Gly Leu Asp  
    565                                      570                                      575  
 Ala Cys Arg Cys Met Ile Asn Leu Met Asp Lys Asp Gly Ser Gly Lys  
    580                                      585                                      590  
 Leu Gly Leu Leu Glu Phe Lys Ile Leu Trp Lys Lys Leu Lys Lys Trp  
    595                                      600                                      605  
 Met Asp Ile Phe Arg Glu Cys Asp Gln Asp His Ser Gly Thr Leu Asn  
    610                                      615                                      620  
 Ser Tyr Glu Met Arg Leu Val Ile Glu Lys Ala Gly Ile Lys Leu Asn  
 625                                      630                                      635                                      640  
 Asn Lys Val Met Gln Val Leu Val Ala Arg Tyr Ala Asp Asp Gly Leu  
    645                                      650                                      655  
 Ile Ile Asp Phe Asp Ser Phe Ile Ser Cys Phe Leu Arg Leu Lys Thr  
    660                                      665                                      670  
 Met Phe Thr Phe Phe Leu Thr Met Asp Pro Lys Asn Thr Gly His Ile  
    675                                      680                                      685  
 Cys Leu Ser Leu Glu Gln Trp Leu Gln Met Thr Met Trp Gly  
    690                                      695                                      700

<210> 931  
 <211> 297  
 <212> DNA  
 <213> Homo sapiens

<400> 931  
 tcgcgaaggg agcctgacat gggccagaaa atcaatcccc atggtttccg tctcgggtgtg  
 60  
 acgaccgatc acaagacccg ctggtacgcc gagaagcagt acgccgagct cgtgggtgag  
 120  
 gatgtcaaga tccgagagtg gctccacaag aatctggagc gcgccggtct ttcgtccatc  
 180  
 gagatcgagc gtcgctccga gcgcgtgacc attttccctt acgccgctcg cccgggcatc  
 240  
 gttatcgggc gcaatggccg ggaggccgag cgcgtgcgtn ntgagctcga aaagctt  
 297

<210> 932  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

<400> 932  
 Met Gly Gln Lys Ile Asn Pro His Gly Phe Arg Leu Gly Val Thr Thr

1	5	10	15
Asp His Lys Thr Arg Trp Tyr Ala Glu Lys Gln Tyr Ala Glu Leu Val			
	20	25	30
Gly Glu Asp Val Lys Ile Arg Glu Trp Leu His Lys Asn Leu Glu Arg			
	35	40	45
Ala Gly Leu Ser Ser Ile Glu Ile Glu Arg Arg Ser Glu Arg Val Thr			
	50	55	60
Ile Phe Leu Tyr Ala Ala Arg Pro Gly Ile Val Ile Gly Arg Asn Gly			
65	70	75	80
Arg Glu Ala Glu Arg Val Arg Xaa Glu Leu Glu Lys Leu			
	85	90	

<210> 933  
 <211> 305  
 <212> DNA  
 <213> Homo sapiens

<400> 933  
 nnacgcgtcg ccaagctggt gatggccgaa tacaaggggc tcaacgtcat cgtcaaaacc  
 60  
 tccgccgatc cggcaagcca agccaatgcc gtgcaggatc tggcgggggc aggcatcgac  
 120  
 gcgctggcca tccgtccgac cgacccggat cagctgggtt cggcgatcca gcagggtcaag  
 180  
 gacgacggca agttcgtggc gctggtcgac cgtgcgcctt ccgtcaacga caacacgac  
 240  
 cgcgatctct acgtggccgg caacaaccgg gcgctcggcg aagtggcggg caaattcatg  
 300  
 ggcgga  
 305

<210> 934  
 <211> 101  
 <212> PRT  
 <213> Homo sapiens

<400> 934
Xaa Arg Val Ala Lys Leu Leu Met Ala Glu Tyr Lys Gly Leu Asn Val
1 5 10 15
Ile Val Lys Thr Ser Ala Asp Pro Ala Ser Gln Ala Asn Ala Val Gln
20 25 30
Asp Leu Ala Gly Ala Gly Ile Asp Ala Leu Ala Ile Leu Pro Thr Asp
35 40 45
Pro Asp Gln Leu Val Ser Ala Ile Gln Gln Val Lys Asp Asp Gly Lys
50 55 60
Phe Val Ala Leu Val Asp Arg Ala Pro Ser Val Asn Asp Asn Thr Ile
65 70 75 80
Arg Asp Leu Tyr Val Ala Gly Asn Asn Pro Ala Leu Gly Glu Val Ala
85 90 95
Gly Lys Phe Met Gly
100

<210> 935  
 <211> 333



&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 935

acgcgtgaag ggctgatgag tgctatgaaa aagccagggg cccgaggaca ctgggggtgga  
 60  
 caggctcccc tggggaagtc ctcttagaac tgagggatca acactggagg agactgcaag  
 120  
 gggtagggga taaatgttcc tgggtgaagga aacagcaggg gcaaaggccc tgcagcagaa  
 180  
 aggagcgagg ccctttggag taacagaaaag accatgggtga caggagctca gaaagaccac  
 240  
 tgggtgttaag actataagcc agtggaggcc agattgggga atgggatggg aggggtgctt  
 300  
 gaagaccatg gtgaggctct cttggtcttt act  
 333

&lt;210&gt; 936

&lt;211&gt; 103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 936

Met	Val	Phe	Lys	His	Pro	Ser	His	Pro	Ile	Pro	Gln	Ser	Gly	Leu	His
1				5					10					15	
Trp	Leu	Ile	Val	Leu	Thr	Pro	Val	Val	Phe	Leu	Ser	Ser	Cys	His	His
			20					25					30		
Gly	Leu	Ser	Val	Thr	Pro	Lys	Gly	Leu	Ala	Pro	Phe	Cys	Cys	Arg	Ala
			35				40					45			
Phe	Ala	Pro	Ala	Val	Ser	Phe	Thr	Arg	Asn	Ile	Tyr	Pro	Val	Pro	Leu
	50					55				60					
Ala	Val	Ser	Ser	Ser	Val	Asp	Pro	Ser	Val	Leu	Arg	Gly	Leu	Pro	Gln
65					70					75				80	
Gly	Ser	Leu	Ser	Thr	Pro	Val	Ser	Ser	Gly	Pro	Trp	Leu	Phe	His	Ser
				85					90					95	
Thr	His	Gln	Pro	Phe	Thr	Arg									
				100											

&lt;210&gt; 937

&lt;211&gt; 464

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 937

nnnttatctg cggagggggg ggccaccctg cccacactca tgctgcaggc ctccaccgac  
 60  
 ccggcggacg acgagctcaa ggatctgttg acggccgacc tcatggacca gcacaacctc  
 120  
 gaccgtgccc tggcagggtt gcgtgccagt cacgtcatcg acgaagctcg cgccgagggtg  
 180  
 cagcggcgtg ccgatctcgc ccgtggccat ctgcgccatcc ttcccgcagg cgatgcccg  
 240  
 acggcggttg agaccctgtg cgacgaggtg ggttcccggg cggcctgaac cccgaccctg  
 300

ccagnctgcg tcccatctcc tggccgggac cgctccagcg tctgctctct gacagctcat  
360  
cgttcttccg acaccaagga gtttctcgtg gcccgtcac tcgatctcat cggcattggt  
420  
cccggcaacc cggactggat caccctggct gccgtcaagg ccan  
464

<210> 938  
<211> 95  
<212> PRT  
<213> Homo sapiens

<400> 938  
Xaa Leu Ser Ala Glu Gly Val Ala Thr Leu Pro Thr Leu Met Leu Gln  
1 5 10 15  
Ala Ser Thr Asp Pro Ala Asp Asp Glu Leu Lys Asp Leu Leu Thr Ala  
20 25 30  
Asp Leu Met Asp Gln His Asn Leu Asp Arg Ala Leu Ala Gly Leu Arg  
35 40 45  
Ala Ser His Val Ile Asp Glu Ala Arg Ala Glu Val Gln Arg Arg Ala  
50 55 60  
Asp Leu Ala Arg Gly His Leu Ala Ile Leu Pro Ala Gly Asp Ala Arg  
65 70 75 80  
Thr Ala Leu Glu Thr Leu Cys Asp Glu Val Gly Ser Arg Ala Ala  
85 90 95

<210> 939  
<211> 385  
<212> DNA  
<213> Homo sapiens

<400> 939  
ntgactatcc tcgaccccga tggtcaggag acgactccag gaagtgtcat cgaagggctt  
60  
ggactgctgc cggtcgaggt ggacttcgcc gccacgaaga cccttgctt gtcgcacggg  
120  
acatggcggg ggatcgaggt tggcggctat gaaatccatc acgggcgtct gtcgttcgct  
180  
gaggacgctg aagccttcct cgacggcgta cacgtcggtc cggatatggg gacgatgtgg  
240  
cacggggcat tcgagcacga cgaattccgt cgcacgtggc tggetgacgc ggcccgtcac  
300  
gctggatcat cctggcgtcc gcactccgac gagctgggtt atcaggctcg acgcgaggcg  
360  
atgatcgaac ccctcgccga cgcgt  
385

<210> 940  
<211> 128  
<212> PRT  
<213> Homo sapiens

<400> 940  
Xaa Thr Ile Leu Asp Pro Asp Gly Gln Glu Thr Thr Pro Gly Ser Val

1	5	10	15
Ile Glu Gly Leu Gly Leu Leu Pro Val Glu Val Asp Phe Ala Ala Thr			
	20	25	30
Lys Thr Leu Ala Leu Ser His Gly Thr Trp Arg Gly Ile Glu Val Gly			
	35	40	45
Gly Tyr Glu Ile His His Gly Arg Leu Ser Phe Ala Glu Asp Ala Glu			
	50	55	60
Ala Phe Leu Asp Gly Val His Val Gly Pro Val Trp Gly Thr Met Trp			
65	70	75	80
His Gly Ala Phe Glu His Asp Glu Phe Arg Arg Thr Trp Leu Ala Asp			
	85	90	95
Ala Ala Arg His Ala Gly Ser Ser Trp Arg Pro His Ser Asp Glu Leu			
	100	105	110
Gly Tyr Gln Ala Arg Arg Glu Ala Met Ile Glu Thr Leu Ala Asp Ala			
	115	120	125

<210> 941  
 <211> 348  
 <212> DNA  
 <213> Homo sapiens

<400> 941  
 atcttctggt cggcggtgat cacgctggtg accatcggcc tgctgtttgc cggcaacttc  
 60  
 gaagccatgc aaaccatggt cgtgctggcc gggctgccgt tctcggtggt gctgattttc  
 120  
 ttcattgttcg gtttgcacaa ggcgatgcgc caggacgtgg ccatggagca ggagcaggca  
 180  
 caattggctg aacgtggctg ccgtgggtttc agcgagcgcc tgaccgcgct ggacctgcaa  
 240  
 ccgagccagg gcaccgtgca acgctttatg gacaaacatg tgacgccggc gttggaacaa  
 300  
 gcggcgactg cgttgctgta tcaagggtg gaagtgcaga ccctgctt  
 348

<210> 942  
 <211> 116  
 <212> PRT  
 <213> Homo sapiens

1	5	10	15
Ile Phe Trp Ser Ala Val Ile Thr Leu Val Thr Ile Gly Leu Leu Phe			
	20	25	30
Ala Gly Asn Phe Glu Ala Met Gln Thr Met Val Val Leu Ala Gly Leu			
	35	40	45
Pro Phe Ser Val Val Leu Ile Phe Phe Met Phe Gly Leu His Lys Ala			
	50	55	60
Met Arg Gln Asp Val Ala Met Glu Gln Glu Gln Ala Gln Leu Ala Glu			
	65	70	75
Arg Gly Arg Arg Gly Phe Ser Glu Arg Leu Thr Ala Leu Asp Leu Gln			
	85	90	95
Pro Ser Gln Gly Thr Val Gln Arg Phe Met Asp Lys His Val Thr Pro			
	100	105	110
Ala Leu Glu Gln Ala Ala Thr Ala Leu Arg Asp Gln Gly Leu Glu Val			

100  
Gln Thr Leu Leu  
115

105

110

<210> 943  
<211> 439  
<212> DNA  
<213> Homo sapiens

<400> 943  
ccatggcagg agcagagcag atagagcagg acctcgtctc cttctctttg cattttgtgc  
60  
ctcctctaata gcacccctggg ctcctgctaa ccctgtggga aacaccgtct cttctctcct  
120  
ttgccctctt ctgtgatcac atcctcactt ctgagcctat ctgcccattcc agtcaatccc  
180  
ccttggttct gggatgctat ttccctggcc gcctccctct aggagtgttt agaaccctca  
240  
ctgtgggcag aagggaggga agatggctga ggtacctgga aagggacgtg tggatccccg  
300  
ggcatggaag gaaggaggca ggagagctag aaaaagggat gagatctaata gttccctaag  
360  
gaacctggct tagtgctggc ccttcacata ctgagacatg gaatccttac tactgttctc  
420  
tgaggaaaga ggctgttcc  
439

<210> 944  
<211> 118  
<212> PRT  
<213> Homo sapiens

<400> 944  
Met Ala Gly Ala Glu Gln Ile Glu Gln Asp Leu Val Ser Phe Ser Leu  
1 5 10 15  
His Phe Val Pro Pro Leu Met His Pro Gly Leu Leu Leu Thr Leu Trp  
20 25 30  
Glu Thr Pro Ser Leu Leu Ser Phe Ala Leu Phe Cys Asp His Ile Leu  
35 40 45  
Thr Ser Glu Pro Ile Cys Pro Ser Ser Gln Ser Pro Leu Val Leu Gly  
50 55 60  
Cys Tyr Phe Pro Gly Arg Leu Pro Leu Gly Val Phe Arg Thr Leu Thr  
65 70 75 80  
Val Gly Arg Arg Glu Gly Arg Trp Leu Arg Tyr Leu Glu Arg Asp Val  
85 90 95  
Trp Ile Pro Gly His Gly Arg Lys Glu Ala Gly Glu Leu Glu Lys Gly  
100 105 110  
Met Arg Ser Asn Val Pro  
115

<210> 945  
<211> 339  
<212> DNA  
<213> Homo sapiens

<400> 945  
 ngaattcgtg aagcgttcca tatttttttc cttttaataa tttcaattgc actttatgtc  
 60  
 gagatgggtga tatatatata tactcacaca catatatatg tgtgtgtgtg tatatatgta  
 120  
 tatatatata gcgtgtacaa caaaacatgc actgtttact cagcaccctcg tgtttgtctc  
 180  
 agcaatagct tttctaaaga actgctacta tttgaaatgg agggggaggg gggtcctgga  
 240  
 cagagtattg tgcaagttga aagtctctgg atggggctat gtatatacta ccagccaatt  
 300  
 tgggtgcaaa ttggatttga aggcctgcct ctgtccacn  
 339

<210> 946  
 <211> 113  
 <212> PRT  
 <213> Homo sapiens

<400> 946  
 Xaa Ile Arg Glu Ala Phe His Ile Phe Phe Leu Leu Ile Ile Ser Ile  
 1 5 10 15  
 Ala Leu Tyr Val Glu Met Val Ile Tyr Ile Tyr Thr His Thr His Ile  
 20 25 30  
 Tyr Val Cys Val Cys Ile Tyr Val Tyr Ile Tyr Ser Val Tyr Asn Lys  
 35 40 45  
 Thr Cys Thr Val Tyr Ser Ala Pro Arg Val Cys Leu Ser Asn Ser Phe  
 50 55 60  
 Ser Lys Glu Leu Leu Leu Phe Glu Met Glu Gly Glu Gly Gly Pro Gly  
 65 70 75 80  
 Gln Ser Ile Val Gln Val Glu Ser Leu Trp Met Gly Leu Cys Ile Ser  
 85 90 95  
 Tyr Gln Pro Ile Trp Val Gln Ile Gly Phe Glu Gly Leu Pro Leu Ser  
 100 105 110  
 Thr

<210> 947  
 <211> 648  
 <212> DNA  
 <213> Homo sapiens

<400> 947  
 tctagatctg ttctcagggg agctgagatg gagatgagtg ggcagcaggt ttatggagtg  
 60  
 ctcgtggcat cacacctgtg cacgggggtg gggaaggagt ggacaggagt ggacaagtca  
 120  
 agtagtgctg ccggctcaag cgatgcctca gcctttctgc tgtgtgcaaa gctttgcaga  
 180  
 ggagatgatg cttcaaagtt gtccctgttg gggatgagca gccaggcctt tatacactgg  
 240  
 gacagtcagt catggatacg tggatactct ggaaaccctc atccctggag gtctgagccc  
 300

ctggatacca tgccttctt aggcctggagt tgcctgcctt gtccatttac cataaaaatt  
 360  
 ggacaagaga ataccaggac acacctgagt ttctcatcgt atgctaaacc tggtcttcca  
 420  
 cgtacatccc caatgtgtac agccctactt ttttctgctg atcaagttca attacttctg  
 480  
 ctaagatggg gactattctt gcctgctggg ccttgatgc aaggacccca atgttcaggc  
 540  
 agcctttggg gccttctagc atacgaatca gagcattatc tttagggtgtg gaataagctg  
 600  
 ccccaaaacc tggtgaagcc agccaggcac tgtgctcct tcacgcgt  
 648

<210> 948  
 <211> 154  
 <212> PRT  
 <213> Homo sapiens

<400> 948  
 Met Glu Met Ser Gly Gln Gln Val Tyr Gly Val Leu Val Ala Ser His  
 1 5 10 15  
 Leu Cys Thr Gly Val Gly Lys Glu Trp Thr Gly Val Asp Lys Ser Ser  
 20 25 30  
 Ser Ala Ala Gly Ser Ser Asp Ala Ser Ala Phe Leu Leu Cys Ala Lys  
 35 40 45  
 Leu Cys Arg Gly Asp Asp Ala Ser Lys Leu Ser Leu Leu Gly Met Ser  
 50 55 60  
 Ser Gln Ala Phe Ile His Trp Asp Ser Gln Ser Trp Ile Arg Gly Tyr  
 65 70 75 80  
 Ser Gly Asn Pro His Pro Trp Arg Ser Glu Pro Leu Asp Thr Met Pro  
 85 90 95  
 Phe Leu Gly Trp Ser Cys Cys Pro Cys Pro Phe Thr Ile Lys Ile Gly  
 100 105 110  
 Gln Glu Asn Thr Arg Thr His Leu Ser Phe Ser Ser Tyr Ala Lys Pro  
 115 120 125  
 Val Leu Pro Arg Thr Ser Pro Met Cys Thr Ala Leu Leu Phe Ser Ala  
 130 135 140  
 Asp Gln Val Gln Leu Leu Leu Arg Trp  
 145 150

<210> 949  
 <211> 661  
 <212> DNA  
 <213> Homo sapiens

<400> 949  
 acgcgtactg gttggctcat tcaactgaaaa tatgatgaca tttaaaggaa atgcaagaat  
 60  
 aagtaatgtg gaattttatc acagtgggtca agaaggcttc agggatagca cagatccaag  
 120  
 atatgctgta acgtttctta acctaggaca gattcaagaa catggctcat cttatattcg  
 180  
 aggctgtgct tttcaccatg gcttctctcc agcaattggg gtatttggga cagatggatt  
 240

ggacatagat gacaacatca ttcactttac agtgggggaa ggcataagaa tatgggggaa  
 300  
 tgccaaccga gtccgaggga atttgattgc actttcgggtt tggccaggaa cctatcagaa  
 360  
 cagaaaagat ttaagttcaa ctctctggca tgcagcaatt gagataaata gagggaccaa  
 420  
 tacagtttta cagaataatg tagtggctgg atttggaaga gcaggatacc gcattgatgg  
 480  
 tgaaccttgc ccaggccagt ttaatcctgt ggaaaagtgg tttgacaatg aagcccatgg  
 540  
 aggtttatat gggatctata tgaaccaaga tggccttctt ggatgttctc ttatacaagg  
 600  
 atttaccatt tggacatgct gggattatgg aatttatattt cagaccacag agagtgtgca  
 660  
 c  
 661

<210> 950  
 <211> 210  
 <212> PRT  
 <213> Homo sapiens

<400> 950  
 Met Met Thr Phe Lys Gly Asn Ala Arg Ile Ser Asn Val Glu Phe Tyr  
 1 5 10 15  
 His Ser Gly Gln Glu Gly Phe Arg Asp Ser Thr Asp Pro Arg Tyr Ala  
 20 25 30  
 Val Thr Phe Leu Asn Leu Gly Gln Ile Gln Glu His Gly Ser Ser Tyr  
 35 40 45  
 Ile Arg Gly Cys Ala Phe His His Gly Phe Ser Pro Ala Ile Gly Val  
 50 55 60  
 Phe Gly Thr Asp Gly Leu Asp Ile Asp Asp Asn Ile Ile His Phe Thr  
 65 70 75 80  
 Val Gly Glu Gly Ile Arg Ile Trp Gly Asn Ala Asn Arg Val Arg Gly  
 85 90 95  
 Asn Leu Ile Ala Leu Ser Val Trp Pro Gly Thr Tyr Gln Asn Arg Lys  
 100 105 110  
 Asp Leu Ser Ser Thr Leu Trp His Ala Ala Ile Glu Ile Asn Arg Gly  
 115 120 125  
 Thr Asn Thr Val Leu Gln Asn Asn Val Val Ala Gly Phe Gly Arg Ala  
 130 135 140  
 Gly Tyr Arg Ile Asp Gly Glu Pro Cys Pro Gly Gln Phe Asn Pro Val  
 145 150 155 160  
 Glu Lys Trp Phe Asp Asn Glu Ala His Gly Gly Leu Tyr Gly Ile Tyr  
 165 170 175  
 Met Asn Gln Asp Gly Leu Pro Gly Cys Ser Leu Ile Gln Gly Phe Thr  
 180 185 190  
 Ile Trp Thr Cys Trp Asp Tyr Gly Ile Tyr Phe Gln Thr Thr Glu Ser  
 195 200 205  
 Val His  
 210

<210> 951  
 <211> 2615

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 951

nntccagccc ccaccatgcc gtggcccttg ctgctgctgc tggccgtgag tggggcccag  
60  
acaaccggc catgcttccc cgggtgccaa tgcgaggtgg agaccttcgg ccttttcgac  
120  
agcttcagcc tgactcgggt ggattgtagc ggcctgggccc cccacatcat gccgggtgccc  
180  
atccctctgg acacagccca cttggacctg tcctccaacc ggctggagat ggtgaatgag  
240  
tcgggtgttg cggggccggg ctacacgacg ttggctggcc tggatctcag ccacaacctg  
300  
ctcaccagca tctcaccac tgccttctcc cgccttcgct acctggagtc gcttgacctc  
360  
agccacaatg gcttgacagc cctgccagcc gagagcttca ccagctcacc cctgagcgac  
420  
gtgaacctta gccacaacca gctccgggag gtctcagtgt ctgccttcac gacgcacagt  
480  
caggggccgg cactacacgt ggacctctcc cacaacctct caccgcctcg tgccccaccc  
540  
cacgagggcc ggcctgcctg cgcccacat tcagagcctg aacctggcct ggaaccggct  
600  
ccatgccgtg cccaacctcg agacttgccc ctgcgctacc tgagcctgga tgggaacct  
660  
ctagctgtca ttgggtccggg tgccttcgcg gggctgggag gccttacaca cctgtctctg  
720  
gccagcctgc agaggctccc tgagctggcg cccagtggct tccgtgagct accgggcctg  
780  
caggtcctgg acctgtcggg caaccccaag cttaactggg caggagctga ggtgttttca  
840  
ggcctgagct ccttgagga gctggacctt tcgggcacca acctgggtgcc cctgcctgag  
900  
gcgctgctcc tccacctccc ggcactgcag agcgtcagcg tgggccagga tgtgcggtgc  
960  
cggcgcttg tgcgggaggg cacctacccc cggaggcctg gctccagccc caagggtggcc  
1020  
ctgcactgcg tagacacccg ggaatctgct gccaggggcc ccaccatctt gtgacaaatg  
1080  
gtgtggccca gggccacata acagactgct gtcctgggct gcctcaggtc ccgagtaact  
1140  
tatgttcaat gtgccaacac cagtggggag cccgcaggcc tatgtggcag cgtcaccaca  
1200  
ggagttgtgg gcctaggaga ggctttggac ctgggagcca cacctaggag caaagtctca  
1260  
cccctttgtc tacgttgctt ccccaaacca tgagcagagg gacttcgatg ccaaaccaga  
1320  
ctcgggtccc ctctgcttc ccttccccac ttatccccc agtgccttcc ctcatgcctg  
1380  
ggccggcctg acccgcaatg ggcagagggg ggggtgggacc ccctgctgca gggcagagtt  
1440  
caggtccact gggctgagtg tccccttggg cccatggccc agtcactcag gggcgagttt  
1500



ctttttctaac atagcccttt ctttgccatg aggccatgag gcccgtttca tccttttcta  
 1560  
 tttccctaga accttaatgg tagaaggaat tgcaaagaat caagtccacc cttctcatgt  
 1620  
 gacagatggg gaaactgagg ctttgagaag gaaaaaggct aatctaagtt cctgcgggca  
 1680  
 gtggcatgac tggagcacag cctcctgcct cccagcccgg acccaatgca ctttcttgtc  
 1740  
 tcctctaata agccccaccc tccccgcctg ggctccccct gctgcccttg cctgttcccc  
 1800  
 attagcacag gagtagcagc agtaggacag gcaagagcct cacaagtggg actctggggc  
 1860  
 tctgaccagc tgtgcggcat gggctaagtc actctgcctt tcggagcctc tggaaactta  
 1920  
 gggcacattg gttccagcct agccagtttc tcaccctggg ttgggggtccc ccagcatcca  
 1980  
 gactggaaac ctaccattt tcccctgagc atcctctaga tgctgccccca aggagttgct  
 2040  
 gcagttctgg agcctcatct ggctgggatc tccaaggggc ctccctggatt cagtccccac  
 2100  
 tggccctgag cacgacagcc cttcttacc tcccaggaat gccgtgaaag gagacaagg  
 2160  
 ctgcccagacc catgtctatg ctctaccccc agggtagcat ctcagcttcc gaaccctggg  
 2220  
 ctgtttcctt agtcttcatt ttataaaagt tgttgccctt ttaacggagt gtcactttca  
 2280  
 accggcctcc cctacccttg ctggccgggg atggagacat gtcatttgta aaagcagaaa  
 2340  
 aaggttgcat ttgttcactt ttgtaatat gtcctggggc tgtgttgggg tgttggggga  
 2400  
 agctgggcat cagtggccac atgggcatca ggggctggcc ccacagagac cccacagggc  
 2460  
 agtgagctct gtcttcccc accctgcctag cccatcatct atctaaccgg tccttgattt  
 2520  
 aataaacact ataaaatgaa gactaaggaa acagcccagg gttcgggaagc tgagatgcta  
 2580  
 ccctgggggt agagcataga catgggtcgg gcaga  
 2615

&lt;210&gt; 952

&lt;211&gt; 357

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 952

Xaa	Pro	Ala	Pro	Thr	Met	Pro	Trp	Pro	Leu	Leu	Leu	Leu	Leu	Ala	Val
1				5				10						15	
Ser	Gly	Ala	Gln	Thr	Thr	Arg	Pro	Cys	Phe	Pro	Gly	Cys	Gln	Cys	Glu
			20				25						30		
Val	Glu	Thr	Phe	Gly	Leu	Phe	Asp	Ser	Phe	Ser	Leu	Thr	Arg	Val	Asp
		35					40					45			
Cys	Ser	Gly	Leu	Gly	Pro	His	Ile	Met	Pro	Val	Pro	Ile	Pro	Leu	Asp
	50					55					60				
Thr	Ala	His	Leu	Asp	Leu	Ser	Ser	Asn	Arg	Leu	Glu	Met	Val	Asn	Glu

```
<210> 953
<211> 347
<212> DNA
<213> Homo sapiens
```

```
<400> 953
acgcgtgaag ccatccctgt gcgcaggcca gtctcgcggg ggtcaccacg gagcgtgtgc
60
accacacttt ccccatccct tgatccatca ttgggcgttg aggtttttccc atgtcttgac
120
tgttgtacct ggcggtctctg cggagtaacc gctgcggaca cacagtagga cgggagggag
180
aagccattgc gtttcaccct ttcattggccc ttcctttccc cttccaagtg agctctttga
240
ggtgagtcac ggagggcagt gtccctctgc atcctgtctg gggttgtcaa atatggccaa
300
```

gtgggctcca tcggggcagc ggggtggggtg ggggggtgtct gtcagag  
347

<210> 954  
<211> 103  
<212> PRT  
<213> Homo sapiens

<400> 954  
Met Glu Pro Thr Trp Pro Tyr Leu Thr Thr Pro Asp Arg Met Gln Arg  
1 5 10 15  
Asp Thr Ala Leu His Asp Ser Pro Gln Arg Ala His Leu Glu Gly Glu  
20 25 30  
Arg Lys Gly His Glu Arg Val Lys Arg Asn Gly Phe Ser Leu Pro Ser  
35 40 45  
Tyr Cys Val Ser Ala Ala Val Thr Pro Gln Ser Arg Gln Val Gln Gln  
50 55 60  
Ser Arg His Gly Lys Thr Ser Thr Pro Asn Asp Gly Ser Arg Asp Gly  
65 70 75 80  
Glu Ser Val Val His Thr Leu Arg Gly Asp Pro Arg Glu Thr Gly Leu  
85 90 95  
Arg Thr Gly Met Ala Ser Arg  
100

<210> 955  
<211> 634  
<212> DNA  
<213> Homo sapiens

<400> 955  
acgcgtgaag ggctctgcag gtgagcggct ctgcaggtga agggttctgc aggtgagcgg  
60  
ctctgcaggt gaatggttct gcaggtgaag ggctctgcag gtgaacgggt ctgcaggtga  
120  
agggctctgc aggtgaacgg ttctgcaggt gagcggctct gcaggtgagc ggctctgcat  
180  
gtgagtgcct ctgtgactgg ctgcgaagca gcatttgtgc acacttgact ggccacaaca  
240  
gaatgttctt ctctgttgtc agcactgagg aggaagctcc tgcctaagcg accacagcca  
300  
ggcaccgct ccatggagac attgctctct ccagactcca ttcagactca ggaaacctga  
360  
gctcctggaa tgcaggctga ggcagctccc acacaaaagc tatctactct ggcagttatc  
420  
agaggcctcc gttgcacaaa tcacacacct actgtgcctg acgtggctgg gcctccagca  
480  
ggacccgctc ctgagaacac acgggtgcta gtccaagtcc acagcacggc tcaagtcact  
540  
cccacaaacc tctctataca aacacacaaa gctctgggag gctaccctgc atccaagagt  
600  
caccatctca cacctggaac aagggttacg gccg  
634

<210> 956

<211> 113  
 <212> PRT  
 <213> Homo sapiens

<400> 956  
 Met Glu Ser Gly Glu Ser Asn Val Ser Met Glu Arg Val Pro Gly Cys  
 1 5 10 15  
 Gly Arg Leu Gly Arg Ser Phe Leu Leu Ser Ala Asp Asn Arg Glu Glu  
 20 25 30  
 His Ser Val Val Ala Ser Gln Val Cys Thr Asn Ala Ala Cys Glu Pro  
 35 40 45  
 Val Thr Glu Ala Leu Thr Cys Arg Ala Ala His Leu Gln Ser Arg Ser  
 50 55 60  
 Pro Ala Glu Pro Phe Thr Cys Arg Ala Leu His Leu Gln Asn Arg Ser  
 65 70 75 80  
 Pro Ala Glu Pro Phe Thr Cys Arg Thr Ile His Leu Gln Ser Arg Ser  
 85 90 95  
 Pro Ala Glu Pro Phe Thr Cys Arg Ala Ala His Leu Gln Ser Pro Ser  
 100 105 110  
 Arg

<210> 957  
 <211> 823  
 <212> DNA  
 <213> Homo sapiens

<400> 957  
 acgcgtggcc tgaccaccgt gtcccgccca tctacaggtg cccgagatcg tgagcgtcct  
 60  
 gcgctccaag cttcaggagg cccagggaga gcacgtcctg ccggccaccc agcacagcgt  
 120  
 gtacctcctg gccacccagc actgcgcagc cgtggtgtcc agcctcctgg gcagccctt  
 180  
 gcccttggaac aggtacccag ctcagactcc aggcttaggg gtccctctgg aatgatgctc  
 240  
 cccctggaat gatgctcccc gagccctcca cccggtctg cccccgact ttctgcatga  
 300  
 gttcccatgg ctgtaggcca cgtgggacag aaagtgacat ggagccaggc cccagtctct  
 360  
 caggtaccca cggggacctc tcctctccag gcgttttggg atcctcactg gctccggtgg  
 420  
 gccctgcaca gcacccccac agggaagctg ctgtttctgc cttcctctaa ggtcccaaaa  
 480  
 ctgcctggct gctctgttgg ccccaggctc cagcacacac tggaggctgc ccctcacct  
 540  
 gtgtcttggc tccggctact ccaagccttg tcctctgcag ggcatccact gctgcctgtg  
 600  
 agcagacccc tgggaactgc ctgatctgag cccctcagg agcccaagga caaccttgtc  
 660  
 tgtaccatac atcactatgt cttcccaagc tcacacctcc cagctcccag caaagggcag  
 720  
 ggcggtgcta ccaccacca gccactggg gtcccccttc ctgcccagg cctccggagc  
 780

atgggtctgc tggcccttcc tttctttgcc tcttagtctg gaa  
823

<210> 958  
<211> 105  
<212> PRT  
<213> Homo sapiens

<400> 958  
Met Ala Val Gly His Val Gly Gln Lys Val Thr Trp Ser Gln Ala Pro  
1 5 10 15  
Val Ser Gln Val Pro Thr Gly Thr Ser Pro Leu Gln Ala Phe Trp Asp  
20 25 30  
Pro His Trp Leu Arg Trp Ala Leu His Ser Thr Pro Thr Gly Lys Leu  
35 40 45  
Leu Phe Leu Pro Ser Ser Lys Val Pro Lys Leu Pro Gly Cys Ser Val  
50 55 60  
Gly Pro Arg Leu Gln His Thr Leu Glu Ala Ala Pro His Pro Val Ser  
65 70 75 80  
Trp Phe Arg Leu Leu Gln Ala Leu Ser Ser Ala Gly His Pro Leu Leu  
85 90 95  
Pro Val Ser Arg Pro Leu Gly Thr Ala  
100 105

<210> 959  
<211> 586  
<212> DNA  
<213> Homo sapiens

<400> 959  
ngtcatgact gcatggccaa gcatgactcc aacaccatca ttaagtttgc cgacgacaca  
60  
acagtggtag gcctgatcac cgacaacgat gaggcagcct atagggagga ggtagagagc  
120  
ctggcagtgt ggtgccagga taacaacctc tccctcaacg tgatcaagac cacgaagatg  
180  
atcgtggact acaggaaaag gagggtcgag cacgccccca ttctcattga tggggctgta  
240  
tgggagccag ttgagagctt caagtccctt ggtgtccaca tcaccatcga actatcatgg  
300  
tccaaacaca ccaagacagt agtgaagagg gtgcgacaat gcctattcca cctcggtaga  
360  
caaaaaagat ttggaatgga tcttcagacc ctcaaaaagt ttgacatcta caccatcgag  
420  
agcatcatga ctggttgcac caccgcctgg tatggcaact gctcggcctc cgaccgcaag  
480  
gcactacaga gggtagtgcg tacggcccag tacatcactg gggctaagct tcttgccatc  
540  
caggacctct ataccaggcg gtgtcagcgg aagaccctga caattg  
586

<210> 960  
<211> 195  
<212> PRT

<213> Homo sapiens

<400> 960

```

Xaa His Asp Cys Met Ala Lys His Asp Ser Asn Thr Ile Ile Lys Phe
 1           5           10           15
Ala Asp Asp Thr Thr Val Val Gly Leu Ile Thr Asp Asn Asp Glu Ala
          20           25           30
Ala Tyr Arg Glu Glu Val Arg Asp Leu Ala Val Trp Cys Gln Asp Asn
          35           40           45
Asn Leu Ser Leu Asn Val Ile Lys Thr Thr Lys Met Ile Val Asp Tyr
          50           55           60
Arg Lys Arg Arg Val Glu His Ala Pro Ile Leu Ile Asp Gly Ala Val
65           70           75           80
Trp Glu Pro Val Glu Ser Phe Lys Phe Leu Gly Val His Ile Thr Ile
          85           90           95
Glu Leu Ser Trp Ser Lys His Thr Lys Thr Val Val Lys Arg Val Arg
          100          105          110
Gln Cys Leu Phe His Leu Gly Arg Gln Lys Arg Phe Gly Met Asp Pro
          115          120          125
Gln Thr Leu Lys Lys Phe Asp Ile Tyr Thr Ile Glu Ser Ile Met Thr
          130          135          140
Gly Cys Ile Thr Ala Trp Tyr Gly Asn Cys Ser Ala Ser Asp Arg Lys
145          150          155          160
Ala Leu Gln Arg Val Val Arg Thr Ala Gln Tyr Ile Thr Gly Ala Lys
          165          170          175
Leu Pro Ala Ile Gln Asp Leu Tyr Thr Arg Arg Cys Gln Arg Lys Thr
          180          185          190
Leu Thr Ile
          195

```

<210> 961

<211> 502

<212> DNA

<213> Homo sapiens

<400> 961

```

acgcgttgtc gtctctccgt agaccattca gtttggcaaa acttccactg gagtctgtgc
60
atgactggat ggtctctttg acagccctgt caaggaatac caacagaata ttgattctcc
120
taaaactgtat agtaacctgc taaccagtcg gaaagagcta ccaccaatg gagatactaa
180
atccatggta atggaccatc gagggcaacc tccagagttg gctgctcttc ccactcctga
240
gtctacacce gtgcttcacc agaagaccct gcaggccatg aagagccact cagaaaaggc
300
ccatggccat ggagcttcaa ggaaagaaac ccctcagttt tttccgtcta gtcgccacc
360
tcattcccca ataagtcatg ggcataatccc cagtgccatt gttcttccaa atgctaccca
420
tgactacaac acgtctttct caaactccaa tgctcacaaa gctgaaaaga agcttcaaaa
480
cattgatcac cccttcacgc gt
502

```

<210> 962  
 <211> 106  
 <212> PRT  
 <213> Homo sapiens

<400> 962  
 Met Val Met Asp His Arg Gly Gln Pro Pro Glu Leu Ala Ala Leu Pro  
 1 5 10 15  
 Thr Pro Glu Ser Thr Pro Val Leu His Gln Lys Thr Leu Gln Ala Met  
 20 25 30  
 Lys Ser His Ser Glu Lys Ala His Gly His Gly Ala Ser Arg Lys Glu  
 35 40 45  
 Thr Pro Gln Phe Phe Pro Ser Ser Pro Pro Pro His Ser Pro Ile Ser  
 50 55 60  
 His Gly His Ile Pro Ser Ala Ile Val Leu Pro Asn Ala Thr His Asp  
 65 70 75 80  
 Tyr Asn Thr Ser Phe Ser Asn Ser Asn Ala His Lys Ala Glu Lys Lys  
 85 90 95  
 Leu Gln Asn Ile Asp His Pro Phe Thr Arg  
 100 105

<210> 963  
 <211> 1298  
 <212> DNA  
 <213> Homo sapiens

<400> 963  
 nntcgcgagc acactccagc ctctggggag caggccacag aacgcagggt gaaacccaag  
 60  
 gcgctctaga ggagatgaat tatggatccg ccctcccgga atcctggctc ggccctcccc  
 120  
 acgccaccca gggccagtcg ggtctgctca cagcccagag aggccgcgtg tccagccgcg  
 180  
 ggcaagagac agagcaggtc cctgtgtatc caagtccctg agcccgtgac accggcccca  
 240  
 ggccctgtag agagccagca gccaccatgg cgaaggagga agatgaggag aagaaagcca  
 300  
 agaaagggaa gaaggggaag aaggcaccgg acccggagaa gcccaaacgg agcctgaagg  
 360  
 ggacgtcgcg ggtgttcatg ggcttccgcg accgaacacc caagatctac aagaagggcc  
 420  
 agttccgcag cgctcggcc ttcttctggg gcctccacac cgccccccac aagaccaagc  
 480  
 gcacgaggaa ggcccgcacc gtgctcgggt acacgtcaga gcttatgacg cacatgcgca  
 540  
 tgggcaagaa gaagcgggag atgaagggca agaagccgtc cttcatgggt atccgcttcc  
 600  
 caggccgccc tggctacggc cgcttgcggc cgcgcgcccg gtcactcagc aaagcgtcca  
 660  
 cggccatcaa ctggctcaca aaaaagttcc tcctcaagaa ggccgaggag tcgggcagcg  
 720  
 aacaggccac agtggacgcc tggctgcagc gctcgagctc ccgcatgggc tcccgcgaac  
 780

tcccccttccc gtcgggtgcc gagatcctgc ggccctggggg ccggtcccg aggttcccc  
 840  
 gcagccgcag catctacgcg tcaggcgagc ccctgggctt cctgcccttc gaggacgagg  
 900  
 cccattcca tcaactcgggc tcccgcaagt cgctgtacgg gcttgagggc ttccaggacc  
 960  
 tgggcgagta ttatgactat caccgcgacg gcgacgacta ctacgaccgg cagtcactcc  
 1020  
 accgctacga ggagcaggaa ccctacctgg cgggcctcgg cccctacagc ccggcctggc  
 1080  
 caccctacgg cgaccactac tacgggtacc cgcccgagga tccctacgac tactaccacc  
 1140  
 ccgactatta cgggtggcccc gttgatccgg ggtacaccta cggctacggc tacgacgatt  
 1200  
 acgaaccccc atatgcgccc ccgtcggggg actcgtctcc ttacagctac cacgatgggt  
 1260  
 acgagggcga ggcgaccct tatggctact acctggat  
 1298

&lt;210&gt; 964

&lt;211&gt; 235

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 964

Ser	Ala	Ser	Gln	Ala	Ala	Val	Ala	Thr	Ala	Ala	Cys	Gly	Arg	Ala	Pro
1				5					10					15	
Gly	His	Ser	Ala	Lys	Arg	Pro	Arg	Pro	Ser	Thr	Gly	Ser	Gln	Lys	Ser
			20					25					30		
Ser	Ser	Ser	Arg	Arg	Pro	Arg	Ser	Arg	Ala	Ala	Asn	Arg	Pro	Gln	Trp
		35					40				45				
Thr	Pro	Gly	Cys	Ser	Ala	Arg	Ala	Pro	Ala	Trp	Ala	Pro	Ala	Asn	Ser
	50					55					60				
Pro	Ser	Arg	Arg	Val	Pro	Arg	Ser	Cys	Gly	Leu	Gly	Ala	Gly	Ser	Gly
65				70					75					80	
Gly	Ser	Pro	Ala	Ala	Ala	Ala	Ser	Thr	Arg	Gln	Ala	Ser	Pro	Trp	Ala
			85					90						95	
Ser	Cys	Pro	Ser	Arg	Thr	Arg	Pro	His	Ser	Ile	Thr	Arg	Ala	Pro	Ala
		100					105						110		
Ser	Arg	Cys	Thr	Gly	Leu	Arg	Ala	Ser	Arg	Thr	Trp	Ala	Ser	Ile	Met
		115					120					125			
Thr	Ile	Thr	Ala	Thr	Ala	Thr	Thr	Thr	Thr	Thr	Gly	Ser	His	Ser	Thr
	130					135					140				
Ala	Thr	Arg	Ser	Arg	Asn	Pro	Thr	Trp	Arg	Ala	Ser	Ala	Pro	Thr	Ala
145					150				155					160	
Arg	Pro	Gly	His	Pro	Thr	Ala	Thr	Thr	Thr	Thr	Gly	Thr	Arg	Pro	Arg
			165					170						175	
Ile	Pro	Thr	Thr	Thr	Thr	Thr	Pro	Thr	Ile	Thr	Val	Ala	Pro	Leu	Ile
		180					185						190		
Arg	Gly	Thr	Pro	Thr	Ala	Thr	Ala	Thr	Thr	Ile	Thr	Asn	Pro	His	Met
	195					200						205			
Arg	Pro	Arg	Arg	Gly	Thr	Arg	Leu	Leu	Thr	Ala	Thr	Thr	Met	Gly	Thr
	210					215					220				
Arg	Ala	Arg	Arg	Thr	Leu	Met	Ala	Thr	Thr	Trp					



225

230

235

<210> 965  
<211> 336  
<212> DNA  
<213> Homo sapiens

<400> 965  
nnngtgacca ttatgggtgg tgcccgtacc cgtgaagtgg aaggcgttga ttttggtggc  
60  
cgggtcagcg atgccgaaaa ggctgaaatc ctcggccgcg ccgatgtgta tgcgcccc  
120  
aataccggcg gtgagagctt tggcattgtc ttggtggaag ccatggcggc aggcgcagcc  
180  
gttggtgctt cagacttgga ggccttcgc gcagtgtgca acgccgattc cgatgatgtt  
240  
gccggcgcgc tatatcgcaa tgaggatagt aatgaccttg ctctgttact caacgaggtg  
300  
ctcgaggatc ctgagtatcg tgcccgetta gtgcac  
336

<210> 966  
<211> 112  
<212> PRT  
<213> Homo sapiens

<400> 966  
Xaa Val Thr Ile Met Gly Gly Ala Arg Thr Arg Glu Val Glu Gly Val  
1 5 10 15  
Asp Phe Val Gly Arg Val Ser Asp Ala Glu Lys Ala Glu Ile Leu Gly  
20 25 30  
Arg Ala Asp Val Tyr Val Ala Pro Asn Thr Gly Gly Glu Ser Phe Gly  
35 40 45  
Ile Val Leu Val Glu Ala Met Ala Ala Gly Ala Ala Val Val Ala Ser  
50 55 60  
Asp Leu Glu Ala Phe Arg Ala Val Cys Asn Ala Asp Ser Asp Asp Val  
65 70 75 80  
Ala Gly Ala Leu Tyr Arg Asn Glu Asp Ser Asn Asp Leu Ala Arg Val  
85 90 95  
Leu Asn Glu Val Leu Glu Asp Pro Glu Tyr Arg Ala Arg Leu Val His  
100 105 110

<210> 967  
<211> 393  
<212> DNA  
<213> Homo sapiens

<400> 967  
ncaaattggca attcatagcc cgccagatcg gacacggagc tgggtggtatc cacggattcg  
60  
ggcgcggagg cgtcgggctc aagctccgct tcggcaccgg tcggcactga ggaatctccg  
120  
tcggcctccg ctcggccgc agcctgggct gcgccagact ctgcgggagg caccttctcc  
180

cgggttcgcc agccaaatgg cgttgcaggc tccagcatcc agtccggtgc cttcggcacc  
 240  
 cccgcactgc gcagagaggc cgccagaaac gatggcaccg gcggcgcggg aggtgataca  
 300  
 ggcgcttcgg ccggagcgct cacggactcc ggcactacag gtgcagcttg cgcttcctgc  
 360  
 ggcggagcaa cagggtcact tcgaggcggg gat  
 393

<210> 968  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 968  
 Pro Ala Arg Ser Asp Thr Glu Leu Val Val Ser Thr Asp Ser Gly Ala  
 1 5 10 15  
 Glu Ala Ser Gly Ser Ser Ser Ala Ser Ala Pro Val Gly Thr Glu Glu  
 20 25 30  
 Ser Pro Ser Ala Ser Ala Ser Ala Ala Trp Ala Ala Pro Asp Ser  
 35 40 45  
 Ala Gly Gly Thr Phe Ser Arg Val Arg Gln Pro Asn Gly Val Ala Gly  
 50 55 60  
 Ser Ser Ile Gln Ser Gly Ala Phe Gly Thr Pro Ala Leu Arg Arg Glu  
 65 70 75 80  
 Ala Ala Arg Asn Asp Gly Thr Gly Gly Ala Gly Gly Asp Thr Gly Ala  
 85 90 95  
 Ser Ala Gly Ala Leu Thr Asp Ser Gly Thr Thr Gly Ala Ala Cys Ala  
 100 105 110  
 Ser Cys Gly Gly Ala Thr Gly Ser Leu Arg Gly Gly Asp  
 115 120 125

<210> 969  
 <211> 880  
 <212> DNA  
 <213> Homo sapiens

<400> 969  
 caattgtcat gcaggacacc aaagatgaac acaggcttca cagtggcaaa ctctgtctga  
 60  
 ttatccttac atgtattgca gaggatcaat atgaccatgc atttttgcac gatgatcaac  
 120  
 atgaattttc gagtaaaactt acatagaatg cctatgagac acaggaagaa ggcagcagac  
 180  
 aagaatctta ccctgccgtc tttagtatgt gaagtactgg acctgatggg agagttttatt  
 240  
 gtaacacaca tgatgaagga gtttcctatg gatctctata tacgctgcat ccaggtagta  
 300  
 cacaaactgc tctgctacca gaagaagtgt cgggtacgcc tgcattacac ctggcgggag  
 360  
 ctctggtcag ccttgataaa tttgctgaag ttccttatgt caaatgagac tgtacttttg  
 420  
 gccaaacaca acattttttac attagccctt atgattgtga acctatttaa tatgtttatc  
 480

acatatggcg acacatttct gccaaacccc agcagctatg atgaacttta ctatgagatt  
 540  
 atccgcatgc accagagctt tgacaacctc tactccatgg tcctgaggct ttctaccaat  
 600  
 gcaggccagt ggaaggaagc agctagcaag gtgacccatg cattgggttaa tatcagagcc  
 660  
 atcatcaacc actttaaccc caaaattgag tcctacgctg ctgtgaatca catatcccaa  
 720  
 ctgtcagagg agcaggtgct ggaggtggtg agagccaact atgacacgct cacgctgaag  
 780  
 ctgcaggatg gcctggacca gtatgagcgc tactcagagc agcacaagga agctgccttc  
 840  
 ttcaaagagc tggttcgatc cattagcacc aacgtccgga  
 880

<210> 970

<211> 263

<212> PRT

<213> Homo sapiens

<400> 970

Met	Thr	Met	His	Phe	Cys	Met	Met	Ile	Asn	Met	Asn	Phe	Arg	Val	Asn
1				5					10					15	
Leu	His	Arg	Met	Pro	Met	Arg	His	Arg	Lys	Lys	Ala	Ala	Asp	Lys	Asn
			20					25					30		
Leu	Thr	Leu	Pro	Ser	Leu	Val	Cys	Glu	Val	Leu	Asp	Leu	Met	Val	Glu
		35				40						45			
Phe	Ile	Val	Thr	His	Met	Met	Lys	Glu	Phe	Pro	Met	Asp	Leu	Tyr	Ile
	50				55					60					
Arg	Cys	Ile	Gln	Val	Val	His	Lys	Leu	Leu	Cys	Tyr	Gln	Lys	Lys	Cys
65				70						75				80	
Arg	Val	Arg	Leu	His	Tyr	Thr	Trp	Arg	Glu	Leu	Trp	Ser	Ala	Leu	Ile
			85					90				95			
Asn	Leu	Leu	Lys	Phe	Leu	Met	Ser	Asn	Glu	Thr	Val	Leu	Leu	Ala	Lys
		100						105				110			
His	Asn	Ile	Phe	Thr	Leu	Ala	Leu	Met	Ile	Val	Asn	Leu	Phe	Asn	Met
	115					120					125				
Phe	Ile	Thr	Tyr	Gly	Asp	Thr	Phe	Leu	Pro	Thr	Pro	Ser	Ser	Tyr	Asp
	130				135						140				
Glu	Leu	Tyr	Tyr	Glu	Ile	Ile	Arg	Met	His	Gln	Ser	Phe	Asp	Asn	Leu
145				150						155				160	
Tyr	Ser	Met	Val	Leu	Arg	Leu	Ser	Thr	Asn	Ala	Gly	Gln	Trp	Lys	Glu
			165					170				175			
Ala	Ala	Ser	Lys	Val	Thr	His	Ala	Leu	Val	Asn	Ile	Arg	Ala	Ile	Ile
			180				185					190			
Asn	His	Phe	Asn	Pro	Lys	Ile	Glu	Ser	Tyr	Ala	Ala	Val	Asn	His	Ile
	195					200				205					
Ser	Gln	Leu	Ser	Glu	Glu	Gln	Val	Leu	Glu	Val	Val	Arg	Ala	Asn	Tyr
	210				215						220				
Asp	Thr	Leu	Thr	Leu	Lys	Leu	Gln	Asp	Gly	Leu	Asp	Gln	Tyr	Glu	Arg
225				230					235					240	
Tyr	Ser	Glu	Gln	His	Lys	Glu	Ala	Ala	Phe	Phe	Lys	Glu	Leu	Val	Arg
			245					250					255		
Ser	Ile	Ser	Thr	Asn	Val	Arg									

260

<210> 971  
<211> 337  
<212> DNA  
<213> Homo sapiens

<400> 971  
tcgcgaggcc tcactatgga gccttctgag gtgctcaacc ttattaaaga ctccggacta  
60  
cgcggtcgtg gtggtgcagg cttccccact ggggtgaaat ggtcctttgt tccccaaaac  
120  
aatcccaacc ccaaatacct ggttggttaac ggagacgaat ccgaaccgga cacgtgcaag  
180  
gacatgccgc tcattatggc aagcccgac acgcttgctg aaggtgctct tatctccgc  
240  
tacgctttcg gatccgagca ggctttcatc tacctccgtg gagaagttgt tcaggtagcc  
300  
cggcgccttg aagaaaaaaaa aaaaatgcga nnnnnnn  
337

<210> 972  
<211> 112  
<212> PRT  
<213> Homo sapiens

<400> 972  
Ser Arg Gly Leu Thr Met Glu Pro Ser Glu Val Leu Asn Leu Ile Lys  
1 5 10 15  
Asp Ser Gly Leu Arg Gly Arg Gly Gly Ala Gly Phe Pro Thr Gly Val  
20 25 30  
Lys Trp Ser Phe Val Pro Gln Asn Asn Pro Asn Pro Lys Tyr Leu Val  
35 40 45  
Val Asn Gly Asp Glu Ser Glu Pro Gly Thr Cys Lys Asp Met Pro Leu  
50 55 60  
Ile Met Ala Ser Pro His Thr Leu Val Glu Gly Ala Leu Ile Ser Arg  
65 70 75 80  
Tyr Ala Phe Gly Ser Glu Gln Ala Phe Ile Tyr Leu Arg Gly Glu Val  
85 90 95  
Val Gln Val Ala Arg Arg Leu Glu Glu Lys Lys Lys Met Arg Xaa Xaa  
100 105 110

<210> 973  
<211> 360  
<212> DNA  
<213> Homo sapiens

<400> 973  
acgcgtgaag gggaaagggg gagtcgtctc cttgggttct aagtgcgccc tctccagggt  
60  
ccagcagggc ggcacagcca aggaaatggc atggctcctgc tgcattgggtc tcagtgggg  
120  
ccgggacctt ctgtataggc atcacttagg aaccagtcag accatcagat tctcaggacc  
180

cactggatca actgagtcag gaactcaggg ttttcaacac atcctccggg gggattccag  
 240  
 tggctgtgta actttgagga ccactggcaa agtggctctg gggtcagaga tccgagttca  
 300  
 tattctgggt ctgcctctga ctgactgcaa cgggtgggcaa gtcacttgcc gtgcccagcc  
 360

<210> 974  
 <211> 91  
 <212> PRT  
 <213> Homo sapiens

<400> 974  
 Met Ala Trp Ser Cys Cys Met Val Leu Ser Gly Val Arg Asp Leu Leu  
 1 5 10 15  
 Tyr Arg His His Leu Gly Thr Ser Gln Thr Ile Arg Phe Ser Gly Pro  
 20 25 30  
 Thr Gly Ser Thr Glu Ser Gly Thr Gln Gly Phe Gln His Ile Leu Arg  
 35 40 45  
 Gly Asp Ser Ser Gly Cys Val Thr Leu Arg Thr Thr Gly Lys Val Ala  
 50 55 60  
 Leu Gly Ser Glu Ile Arg Val His Ile Leu Gly Leu Pro Leu Thr Asp  
 65 70 75 80  
 Cys Asn Gly Gly Gln Val Thr Cys Arg Ala Gln  
 85 90

<210> 975  
 <211> 2604  
 <212> DNA  
 <213> Homo sapiens

<400> 975  
 gcagcctctc tgagctggag cgtctgaagc tgcaagagac tgcttaccac gaactcgtgg  
 60  
 ccagacattt cctctccgaa ttcaaacctg acagagctct gcctattgac cgtccgaaca  
 120  
 ccttggataa gtggtttctg attttgagag gacagcagag ggctgtatca cacaagacat  
 180  
 ttggcattag cctggaagag gtccctgggtga acgagtttac ccgccgcaag catcttgaac  
 240  
 tgaccagcca cgatgcaggt tgaagaagcc accggtcagg ctgcggggccg tcgtcgggga  
 300  
 aacgtggtgc gaaggggtgtt tggccgcac cggcgctttt tcagtcgcag gcggaatgag  
 360  
 cccaccttgc cccgggagtt cactcgccgt gggcgctcag gtgcagtgtc tgtggatagt  
 420  
 ctggctgagc tggaagacgg agccctgctg ctgcagaccc tgcagctttc aaaaatttcc  
 480  
 ttccaattg gccaacgact tctgggatcc aaaaggaaga tgagtctcaa tccgattgag  
 540  
 aaacaaatcc cccaggttgt tgaggcttgc tgccaattca ttgaaaaaca tggcttaagc  
 600  
 gcagtgggga tttttaccct tgaatactcc gtgcagcgag tgcgtcagct ccgtgaagaa  
 660

tttgatcaag gtctggatgt agtgctggat gacaatcaga atgtgcatga tgtggctgca  
720  
ctcctcaagg agtttttccg tgacatgaag gattctctgc tgccagatga tctgtacatg  
780  
tcattcctcc tgacagcaac tttaaagccc caggatcagc tttctgccct gcagttgctg  
840  
gtctacctga cgccaccctg ccacagtgat accctggagc gtctgctgaa ggccctgcat  
900  
aaaatcactg agaactgcga ggactcaatt ggcattgatg gacagttggt cccaggcaac  
960  
cgtatgactt ccactaactt ggccttggtg tttggatctg ctctcctgaa aaaaggaaaag  
1020  
tttggcaaga gagagtccag gaaaacaaag ctggggattg atcactatgt tgcttctgtc  
1080  
aatgtggtcc gtgccatgat tgataactgg gatgtcctct tccaggtgcc tccccatatt  
1140  
cagaggcagg ttgctaagcg cgtgtggaag tccagcccgg aagcacttga ttttatcaga  
1200  
cgcaggaact tgaggaagat ccagagtgcg cgcataaaga tggaagagga tgcactactt  
1260  
tctgatccag tggaaacctc tgctgaagcc cgggctgctg tccttgetca aagcaagcct  
1320  
tctgatgaag gttcctctga ggagccagct gtgccttccg gcactgcccg tccccatgac  
1380  
gatgaggaag gagcgggtaa ccctcccatt ccggagcaag accgcccatt gctccgtgtg  
1440  
ccccgggaga aggaggccaa aactggcgtc agctacttct ttccttagat gtttttcctt  
1500  
ctataaggtg ccagacaggg gaaaagggtg ggggtacatc tgggatgtca caggaaacat  
1560  
taaggagaga gttgaaggta aagatctgaa ggtaagaagg agttccacct gatgctcggg  
1620  
tcaggatgag aattccaaac aactgccag ccccttccct ggggatgctt ggtctcttct  
1680  
gctggtaaaa gcagagatgt ttctgtgtca tgcccaagct ccccggtgct accttgcctt  
1740  
tctcttttac ccctgatctt ggctttctct ctctctctgc agactttcct ttaattgatg  
1800  
tgacatttgt ggtaaacc accctccagg aacctcaca atcttgagat gctttccctt  
1860  
ccccaaatgg gattgcatga tttccctgac tttcctaccc tcctccagag agctcagttg  
1920  
gaaaggccct caagaggcat gctagaacgt taggtcagcc tactgacagc tgacaaacaa  
1980  
ttaatgcgaa atcatgtcac accaaccctat agccgtgtcc acgcagcaac tccaccacct  
2040  
taggatttcc ccctccaaat tattcagacc aatggcttgc caaatggcct ctcccaaaat  
2100  
tctgtacagt tttgctcagg tcacgccaac agggaaacct caagtgtagg tctaattagt  
2160  
gtttctggga tccaaagtta gaggaaaatt tagattttat tgcttggatc tgctttaaag  
2220  
acaattggtg ttacaccct cttgtcagca aaacagctag ttaggtaagg acatatagtt  
2280

ccaagtaggt aaagtcactt gattacaaat gttcttaact atcgtctctg taattccttt  
 2340  
 atacaggaca gtacaaaatt gtgggacatg ctctggtaac acacagatat gggttgcata  
 2400  
 tgatccagaa ttacagctga tattatggat gacaactgct aaggtccata aaatgaagac  
 2460  
 tgtattgtat tgagggatag aaattgatca tttaatgggt aacaactgct gagctcaaag  
 2520  
 atttgtgatt gttaaaactt ctctggcatt taatcattaa taaacatctg tattgtgaca  
 2580  
 gcaaaaaaaaa aaaaaaaaaa aaaa  
 2604

<210> 976  
 <211> 411  
 <212> PRT  
 <213> Homo sapiens

<400> 976  
 Met Gln Val Glu Glu Ala Thr Gly Gln Ala Ala Gly Arg Arg Arg Gly  
 1 5 10 15  
 Asn Val Val Arg Arg Val Phe Gly Arg Ile Arg Arg Phe Phe Ser Arg  
 20 25 30  
 Arg Arg Asn Glu Pro Thr Leu Pro Arg Glu Phe Thr Arg Arg Gly Arg  
 35 40 45  
 Arg Gly Ala Val Ser Val Asp Ser Leu Ala Glu Leu Glu Asp Gly Ala  
 50 55 60  
 Leu Leu Leu Gln Thr Leu Gln Leu Ser Lys Ile Ser Phe Pro Ile Gly  
 65 70 75 80  
 Gln Arg Leu Leu Gly Ser Lys Arg Lys Met Ser Leu Asn Pro Ile Ala  
 85 90 95  
 Lys Gln Ile Pro Gln Val Val Glu Ala Cys Cys Gln Phe Ile Glu Lys  
 100 105 110  
 His Gly Leu Ser Ala Val Gly Ile Phe Thr Leu Glu Tyr Ser Val Gln  
 115 120 125  
 Arg Val Arg Gln Leu Arg Glu Glu Phe Asp Gln Gly Leu Asp Val Val  
 130 135 140  
 Leu Asp Asp Asn Gln Asn Val His Asp Val Ala Ala Leu Leu Lys Glu  
 145 150 155 160  
 Phe Phe Arg Asp Met Lys Asp Ser Leu Leu Pro Asp Asp Leu Tyr Met  
 165 170 175  
 Ser Phe Leu Leu Thr Ala Thr Leu Lys Pro Gln Asp Gln Leu Ser Ala  
 180 185 190  
 Leu Gln Leu Leu Val Tyr Leu Thr Pro Pro Cys His Ser Asp Thr Leu  
 195 200 205  
 Glu Arg Leu Leu Lys Ala Leu His Lys Ile Thr Glu Asn Cys Glu Asp  
 210 215 220  
 Ser Ile Gly Ile Asp Gly Gln Leu Val Pro Gly Asn Arg Met Thr Ser  
 225 230 235 240  
 Thr Asn Leu Ala Leu Val Phe Gly Ser Ala Leu Leu Lys Lys Gly Lys  
 245 250 255  
 Phe Gly Lys Arg Glu Ser Arg Lys Thr Lys Leu Gly Ile Asp His Tyr  
 260 265 270  
 Val Ala Ser Val Asn Val Val Arg Ala Met Ile Asp Asn Trp Asp Val

275	280	285
Leu Phe Gln Val Pro Pro His	Ile Gln Arg Gln Val Ala Lys Arg Val	
290	295	300
Trp Lys Ser Ser Pro Glu Ala Leu Asp Phe Ile Arg Arg Arg Asn Leu		
305	310	315
Arg Lys Ile Gln Ser Ala Arg Ile Lys Met Glu Glu Asp Ala Leu Leu		
325	330	335
Ser Asp Pro Val Glu Thr Ser Ala Glu Ala Arg Ala Ala Val Leu Ala		
340	345	350
Gln Ser Lys Pro Ser Asp Glu Gly Ser Ser Glu Glu Pro Ala Val Pro		
355	360	365
Ser Gly Thr Ala Arg Ser His Asp Asp Glu Glu Gly Ala Gly Asn Pro		
370	375	380
Pro Ile Pro Glu Gln Asp Arg Pro Leu Leu Arg Val Pro Arg Glu Lys		
385	390	395
Glu Ala Lys Thr Gly Val Ser Tyr Phe Phe Pro		
405	410	

<210> 977  
 <211> 378  
 <212> DNA  
 <213> Homo sapiens

<400> 977  
 cgcggtgaagg gggccatcca gaggagcacg gagacgggcc tggcagtgga gatgcccagc  
 60  
 cggacactgc gccaggccag ccacgagtcc attgaggaca gcatgaacag ctatgggtca  
 120  
 gagggcaacc ttaactatgg aggagtttgc ctggcgctcg acgcccagtt cagtgacttc  
 180  
 ctgggaagca tggggccggc acagtttgtg ggccgccaga ccctggccac cacacccatg  
 240  
 ggggatgtgg agatcggctc gcaggagcgg aacggtcagt tggaggtgga cattatccag  
 300  
 gctcggggac tgacagccaa gccaggctcc aagacactgc cagcggccta catcaaggcc  
 360  
 tacctgctag agatggca  
 378

<210> 978  
 <211> 126  
 <212> PRT  
 <213> Homo sapiens

<400> 978
Arg Val Lys Gly Ala Ile Gln Arg Ser Thr Glu Thr Gly Leu Ala Val
1 5 10 15
Glu Met Pro Ser Arg Thr Leu Arg Gln Ala Ser His Glu Ser Ile Glu
20 25 30
Asp Ser Met Asn Ser Tyr Gly Ser Glu Gly Asn Leu Asn Tyr Gly Gly
35 40 45
Val Cys Leu Ala Ser Asp Ala Gln Phe Ser Asp Phe Leu Gly Ser Met
50 55 60
Gly Pro Ala Gln Phe Val Gly Arg Gln Thr Leu Ala Thr Thr Pro Met



65		70		75		80									
Gly	Asp	Val	Glu	Ile	Gly	Leu	Gln	Glu	Arg	Asn	Gly	Gln	Leu	Glu	Val
			85					90					95		
Asp	Ile	Ile	Gln	Ala	Arg	Gly	Leu	Thr	Ala	Lys	Pro	Gly	Ser	Lys	Thr
			100					105					110		
Leu	Pro	Ala	Ala	Tyr	Ile	Lys	Ala	Tyr	Leu	Leu	Glu	Met	Ala		
		115					120					125			

<210> 979  
 <211> 3500  
 <212> DNA  
 <213> Homo sapiens

<400> 979  
 nntttttttt ttccagggga aaatgcttta ttgagtaaag tatccgagga agtgatgcag  
 60  
 ggcaggtaaa cagctggtgc tcagcagcga gaggacgcgt cactctgccg ttctgcaggg  
 120  
 tgacgccctc cccgtacctc gctgagagcc acctgcagac acagcaggcc acagcagaat  
 180  
 gcacaggtca ctgttgtagg ggaacaaatc gtaatgcccc gagaaaacct cagcctccca  
 240  
 aagtgtctggg attacaggcg tgagccacgg cgctggcct ccttccttca cttttgaaat  
 300  
 taaagcctct ttgcaagtcc tgctctgaga aatggctact gcacatggta aagaggccct  
 360  
 gagcccatg gccatctctc ttggtgaggg gtggcgggccc cgggtgctgt ctgagatgcc  
 420  
 agctcaggag ggctccatcc tggctctgct gcccagggc cggcgttccc ggagggctcc  
 480  
 aggttcccgg ttctagtcct ggaaaggcag aaggagagag ggaagggaag ggtgggaggg  
 540  
 gcctctggga ggtgcagccc caccctatgc cccacacccc gggactcctc gcagacgggg  
 600  
 acacgtgtgg gagtgtccgc ggagcttcac atttcagggc cgtctcagcc agtgcctctg  
 660  
 aagtggccgc agccttgggg ccagggtccc tcctgagtc acctgggcca cattgctccc  
 720  
 acggtgcaca ctccagcaca agaatggctc agccttgatc ccccaaactg ggcaccgtcc  
 780  
 ctgcatgtag gtgtgtgggg gggcctcagc agcagacggg gccatgggccc tctgggtggg  
 840  
 cactcggctc ctgctcctgg gacgagctcc gggggggcct ggtggcattg gcccggaacag  
 900  
 agatatggte ccagcctccc ccgatgccgt agtcccagcc gtggcccttg ggctcgtgag  
 960  
 gctgcacgcc ggtgcgatga cacactgtcc cccggctcag gctgtggctg ccctgcactt  
 1020  
 tgttggcgat caccagacc tgggtccagg gcccacgga cactcggcac acgttggtgg  
 1080  
 acacgtgctc ccagctggag ccctgcgggt agctgggcgt gatcccttgg cgataccaca  
 1140  
 ggtttccatt ctcatccagg gcataaccg acgtctgccc cgcggacacc tgcttcagcc  
 1200

tctgtctcgg tggggacggg atgtggtacc agcagtcacc ggctggctgc gaggggtaca  
1260  
cggatccccg gtagaaggcg gagccgtccc ttgccacggc ccacacctgg tagcaggccc  
1320  
cgatggagat ggaggcgaag agctggctcg tgccaacgtg cagccaggag gagcccgcag  
1380  
ggttgagctc cgacacgccc aggcggcaca gcacatcccc cttgtcgtg acggcccaga  
1440  
gggcatgct gtgcccactc cctcggcac ccgggtctc cgggatgatg gacacgtccc  
1500  
tgagggcgat ggggggcacc tccagccagg gccactggt caccagcttg cattttctgg  
1560  
cccagcacct cctcctcaca aaatccttca tcgttttgga cccatggtat gaggcaggga  
1620  
agtcgtggc atactgccac cctcctggt ccgtgcccc cggaacgtg aaatccacga  
1680  
accagtcgga aaccagggc cactgcaggg acgggggctt cgtgccagcc ttcgtgcact  
1740  
cctgcagccc cgaggcatcg ctccacatgt accggtccgt gggcagaccc ctgctggtgt  
1800  
agcctgtgac ggggttccag cgctggttct catagatgtg aacacacttc acgtctgact  
1860  
gcgtgtagat gttactggtg ctgctggcca ggccttgga gcagccgcct ccatagccgc  
1920  
ctgtgtatac ccaggccgtg tggcatagc cgatgcccc caccacgccc cggctgttgg  
1980  
cctccaccat ccgcagggtg cctcccatct gccgcaaaa catctggtcg cagggcaggg  
2040  
ggtgctcgtg ggcctccagg tctgggtggg ctgctcacg aagatgtccc ccttgcagg  
2100  
gatggaccag atggcctgcg gggacgggcg gccctgcacc ttccggctct cgcagcaaga  
2160  
caggctgagc agggcgagcc agtcattcat gtccctgctc gtggcagcag ccagacgcac  
2220  
cgccacctc tgccgtgtcc gctcaggggt gtacagggca aaggagtgtc tggctctcgtc  
2280  
cagcactggg accagcgcca ccacctcatt caggaatatg tggatgtact tcttctcctc  
2340  
gtggaccaca tagtagatga agaggatgct gtcccggacg ccgtcgtgcc ccgtgaactg  
2400  
ctccagggcc aagcgcacgt ccacccactt gtggggcttc cagtcgcacc accactgcag  
2460  
cgccccggtc ttcaccaca ccgactgctc cacggcctgc tcgtagtgtc tgaagttctc  
2520  
cagctcccgc ttggtccttt ccgtgagctg ctggaagatc tgcttcctcc aggcagcgg  
2580  
ctgggcccgc gtgatggaca gggacagcat gtgtaccgag gaggacaggc ctgtggggca  
2640  
gagagagcct cagggccggg gactgtcct gccgcagct gggcaggaag ccacggcgct  
2700  
ccccccacc aaatcagccc tttctagctc aaaagctacg ctctctgtta agcctcctc  
2760  
cacccttgc cctgatggat gagttgctct ccccagtaa ttcagcctgg aaagcagcca  
2820

ccaccgctag cacaggggag gggctgcaga caggggaagg ggcactggcc accgtgcttc  
2880  
caggtcctga cagcctcggg ctggtctctg gaggccacag aggagcgcaa tgcctggctc  
2940  
agagctgctg agcacagtga ggcgtccagg gaggacagca ggcctgcccc agccccctga  
3000  
ccccggctc ctcccacacc ccacaccccc agggcacctg gccatgtgga tgccccagg  
3060  
ccctgcagga gcccttacct gcctggacag tgaacctctt gggcatggca catgcctcca  
3120  
ccacgcagcc gcctcccgac acccaggccc acagcgggtg gtcattccacc ccatacggct  
3180  
cctccaagcc cagtgggagg agccccagag aggagaggct ggtgggtctc gggaagccag  
3240  
cggccgagtg gctgggcact ttcttggcct ccttgaggtc aatattggtc cagggcagct  
3300  
cggccggggt gggggccggg ccgggggtgcg tgttgggtct ggcctccctg ctgccctcgg  
3360  
ctgggcaggc atcttccacg gtatcttctg cggtcctgcc agccccagg cctgaggctg  
3420  
agttccctgt ggcattcttg gaatcgtcta gaggttctgc agggagaatc tggccaggcc  
3480  
ctggtctctc gacttccgag  
3500

<210> 980  
<211> 73  
<212> PRT  
<213> Homo sapiens

<400> 980  
Met Ser Cys Ser Pro Pro Val Ile Gln Pro Gly Lys Gln Pro Pro Pro  
1 5 10 15  
Leu Ala Gln Gly Arg Gly Cys Arg Gln Gly Lys Gly His Trp Pro Pro  
20 25 30  
Cys Phe Gln Val Leu Thr Ala Ser Gly Trp Ser Leu Glu Ala Thr Glu  
35 40 45  
Glu Arg Asn Ala Trp Leu Arg Ala Ala Glu His Ser Glu Ala Ser Arg  
50 55 60  
Glu Asp Ser Arg Pro Ala Arg Ala Pro  
65 70

<210> 981  
<211> 404  
<212> DNA  
<213> Homo sapiens

<400> 981  
nacgcgtacg cggactcgac ggcagtggtc ggcccgcttg cgcccgcgcc cgacccccac  
60  
gcctgggact tgtgagagcg ccactccgcc cacatcacag cgccgggtggg gtgggagctg  
120  
gttcgcgtcg agcacgtcga gcttgacgac gaagacgtgg acgacgagaa caccgacatc  
180

accgcactcg cggaggcggg tgcgcgaggg ggggcgggta accaccggtt tggaggagac  
240  
cggccaggat ccgatcgagt actcggcaga caaagacttc aacaacccag acacctccaa  
300  
ccatccggtg caccggacca agcgtgtgga ggaacagcta gcggcgcaca aggcggcgcg  
360  
ccgctccac ctgcgcattg tcccggatcc gaaccgggac gcgt  
404

<210> 982  
<211> 134  
<212> PRT  
<213> Homo sapiens

<400> 982  
Xaa Ala Tyr Ala Asp Ser Thr Ala Val Val Gly Pro Leu Ala Pro Ala  
1 5 10 15  
Pro Asp Pro His Ala Trp Asp Leu Cys Glu Arg His Ser Ala His Ile  
20 25 30  
Thr Ala Pro Val Gly Trp Glu Leu Val Arg Val Glu His Val Glu Leu  
35 40 45  
Asp Asp Glu Asp Val Asp Asp Glu Asn Thr Asp Ile Thr Ala Leu Ala  
50 55 60  
Glu Ala Gly Ala Arg Gly Gly Ala Gly Asn His Arg Phe Gly Gly Asp  
65 70 75 80  
Arg Pro Gly Ser Asp Arg Val Leu Gly Arg Gln Arg Leu Gln Gln Pro  
85 90 95  
Arg His Leu Gln Pro Ser Gly Ala Pro Asp Gln Ala Cys Gly Gly Thr  
100 105 110  
Ala Ser Gly Ala Gln Gly Gly Ala Pro Leu Pro Pro Ala His Cys Pro  
115 120 125  
Gly Ser Glu Pro Gly Arg  
130

<210> 983  
<211> 579  
<212> DNA  
<213> Homo sapiens

<400> 983  
ctttctccca tggctgccac ctgcctcaac aaaagccaaa gccctcacca tggcccaaag  
60  
accctacata atctgggtcc ctttacctct cttaccttgt ctectatcac tctcaatata  
120  
actcactctt ctccagctac actggcctcc ttgctgttcc ccaagcgtgc tagataccct  
180  
tccttttcag ggcttttgta cttgtttctt tcactgcctg aaacaccctt cctcctaaat  
240  
aatctgatga gttgccctag tacttccagt gtgctcaaata gtcacctccc tagagaagt  
300  
tttctgatc aacatatcta aaatcgcccc atcacatgca ttttatatcc ctttatccta  
360  
atttatgtat gtttttctac aaagcactga tcaccacctg gtatatattta tatttattta  
420

ttgtgggttag tgttcgtctc tcttcagtag actgtaagct ccataaagca gggacttctg  
 480  
 ttttggtcac tgctgtatcc ccagtgccaa aaacaacagt gcatagtaga tactcaataa  
 540  
 atatttgtgg aataaactga aaaaaaaaaa aaaaaaaaaa  
 579

<210> 984  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 984  
 Met Ala Ala Thr Cys Leu Asn Lys Ser Gln Ser Pro His His Gly Pro  
 1 5 10 15  
 Lys Thr Leu His Asn Leu Gly Pro Phe Thr Ser Leu Thr Leu Ser Pro  
 20 25 30  
 Ile Thr Leu Asn Ile Thr His Ser Ser Pro Ala Thr Leu Ala Ser Leu  
 35 40 45  
 Leu Phe Pro Lys Arg Ala Arg Tyr Pro Ser Phe Ser Gly Pro Leu Tyr  
 50 55 60  
 Leu Phe Phe Ser Leu Pro Glu Thr Pro Phe Leu Leu Asn Asn Leu Met  
 65 70 75 80  
 Ser Cys Pro Ser Thr Ser Ser Val Leu Lys Cys His Leu Pro Arg Glu  
 85 90 95  
 Val Phe Pro Asp Gln His Ile  
 100

<210> 985  
 <211> 313  
 <212> DNA  
 <213> Homo sapiens

<400> 985  
 acgcgtccct caaggtgaaa tgaatggcct tgcgtgcacg gtacatacta agcttgataa  
 60  
 aaagcaacaa cttggcaata ttcaaagtag ttactctgct aagaacatcg atgtggcaaa  
 120  
 ctttaaagct catgatctta aacttgtcac agaaattaat catttagaca accagatctt  
 180  
 tattgattat gcaaaattga ttaaagaatc cgatgcgctg ccagtagatc aacaagtcgc  
 240  
 gtttttctta aataatatgc aaagtattat tgacggaaag cctgagctaa atataacaga  
 300  
 gttgagcggg ttc  
 313

<210> 986  
 <211> 98  
 <212> PRT  
 <213> Homo sapiens

<400> 986  
 Met Asn Gly Leu Ala Val Thr Val His Thr Lys Leu Asp Lys Lys Gln

1	5	10	15
Gln Leu Gly Asn Ile Gln Met Ser Tyr Ser Ala Lys Asn Ile Asp Val			
	20	25	30
Ala Asn Phe Lys Ala His Asp Leu Lys Leu Val Thr Glu Ile Asn His			
	35	40	45
Leu Asp Asn Gln Ile Phe Ile Asp Tyr Ala Lys Leu Ile Lys Glu Ser			
	50	55	60
Asp Ala Leu Pro Val Asp Gln Gln Val Ala Phe Phe Leu Asn Asn Met			
65	70	75	80
Gln Ser Ile Ile Asp Gly Lys Pro Glu Leu Asn Ile Thr Glu Leu Ser			
	85	90	95
Gly Phe			

<210> 987  
 <211> 4224  
 <212> DNA  
 <213> Homo sapiens

<400> 987  
 nnttttggat tcttactgta gctctatctc atttatccat catagcgtcc cggggagatg  
 60  
 gggtcaggag atagcagtgc caaccacta gcaagggtt gactgggtata tatcacatga  
 120  
 tccccaaagg cataacatga agtctgtatt atccccacat atgcagaagg aaggcttgga  
 180  
 gaagcaatct gaccaagatc acatcccttt ttttttttcg gagatggagg gggagtctca  
 240  
 ctgtgttacc ccagctagtc ttgaactcct ggcctcaggg atccacctgc ctcagcccc  
 300  
 caagtagctg ggattacaag tgctagccac tgaacctggc cagaatcaca tcatttttaa  
 360  
 atggctgaac taggatttaa acccatgtct gattaaacat cccaagatgt tttccatggt  
 420  
 aagtctgtgt caatcgttag ttccctgaag gaaggcttaa tctagcaaca gtattttctg  
 480  
 tatctactcc cctggtttct cccacagag ctagggccat gagtaccttg tttttgactg  
 540  
 gaaggagctg tggggtggac cgtttccctg aaagctagaa gaatgtttga agcctgttcc  
 600  
 caaggacctt tgaacatctg tgaagaaatg actattctgc atggaggctt cttgctggcc  
 660  
 gagcagctgt tccaccctaa ggcactggca gaattaacaa agtctgactg ggaacgtgtt  
 720  
 ggacggccca tcgtgggggc cttaaggag atctcctcgg ctgcagcaca ctcccagccc  
 780  
 ttgcctgga agaagaaagc cctgatcatc atctgggcca aggttctgca gccgcacccc  
 840  
 gtgaccccggt ccgacacaga gacacggtgg caggaagacc tgttcttctc ggtgggcaac  
 900  
 atgatcccca ccatcaacca caccatctc ttcgagctgc tcaaaccctt ggaagcttct  
 960  
 ggactcttta tccagctcct gatggccctg cccaccacca tctgccatgc agaactagag  
 1020

cgctttctgg aacatgtgac cgttgacact tctgccgaag acgtggcctt cttectggac  
1080  
gtctgggtggg aggtgatgaa gcacaagggt caccgcagg acccctgct ctccagttt  
1140  
agtgcattgg ccataagta cctgcctgcc ttagatgagt tccccatcc tccaaagagg  
1200  
cttaggtcag acccagacgc gtgcccacc atgcccctgt tggccatgct gctccgcggg  
1260  
ctgacacaga tccagagtcg gatcctgggc ccggggagga agtgctgtgc gctggccaac  
1320  
ctggctgaca tgctgactgt gtttgcgctg acagaggacg acccccagga ggtgtctgca  
1380  
accgtgtatc tggacaaact ggccacggtg atctctgtgt ggaactcggg caccagaat  
1440  
ccctaccacc agcaggcgct ggcagagaag gtgaaggagg cagaacggga tgtcagcctg  
1500  
acctcgctgg ccaaactccc cagtgaagacc attttcgtgg gctgagagtt cctgcaccac  
1560  
ctgctgcggg agtgggggga ggagttgcag gccgtgctcc gcagcagcca ggggacaagt  
1620  
tacgacagct accggctgtg cgacagtctg acttccttca gccagaacgc gacgtcttac  
1680  
ctgaaccgca ccagcctgtc caaggaggac aggcagggtg tctctgagct ggcggagtgt  
1740  
gtcagggact tcctgaggaa aacgagcacg gtgctgaaga acagggcctt ggaggatatt  
1800  
acagcttcca ttgccatggc cgtcatccag cagaagatgg accgccatat ggaagtgtgc  
1860  
tacatttttg cctctgagaa gaagtgggac ttctcggacg agtgggtagc ctgcctgggg  
1920  
agtaacaggg ccctcttccg agagccagac ttgggtgttg ggctgctgga aacagtgata  
1980  
gacgtcagca cagctgacag agccatccct gagtctcaga tccggcagggt gatccacctg  
2040  
atcctggaat gttacgcaga cctctccctg ccaggtaaaa ataaagtcct tgcaggtatc  
2100  
ctgcgttccct gggggcgaaa gggcctctct gaaaagttgc tggcttatgt ggagggtttt  
2160  
caggaagacc tcaatacaac ttttaaccag ctactcaga gtgcctccga acagggcctg  
2220  
gcaaaagctg tggcctccgt ggcccgcctg gtcatagtgc acccggaggt cacgggtgaag  
2280  
aaaatgtgca gcctggctgt ggtcaatctc ggcaccaca agttcctggc ccagattctc  
2340  
actgccttcc ctgcccttag gttgtggaa gtgcagggtc ccaattcatt tgcactttc  
2400  
atggtgtcat gcctcaaaga aaccgtctgg atgaagttct ctacacccaa ggaagaaaag  
2460  
caatttttag agctcctgaa ctgcctgatg agtcccgtga aacccaagg gattccagtg  
2520  
gctgctcttc ttgagccaga cgagggtgctg aaggaatttg tcctgccttt cttgaggtta  
2580  
gatgttgaag aggtagacct cagtctgagg atcttcatcc agactctaga ggcaaacgcg  
2640

tgccgagagg aatactggct ccagacctgc tccccgtttc cactcctctt cagcttgtgc  
2700  
cagctcttgg accgcttcag caaatactgg cagcttccca aggagaagcg gtgcctctct  
2760  
ttggatagga aggatctagc gatccatata ctggagctcc tgtgtgagat tgtatcagcc  
2820  
aatgctgaga ccttctcccc ggatgtctgg atcaagtccc tgcctggct ccaccgcaag  
2880  
ttagaacagc tagactggac tgtgggcctg aggctgaaga gcttcttcga ggggcacttc  
2940  
aagtgtgaag tgccagccac actttttgag atctgtaagc tttcagaaga cgagtggacc  
3000  
tcccaggccc acccagggta cggggctggc acggggctcc tggcctggat ggagtgtgc  
3060  
tgcgtctcca gcggcatctc ggagaggatg ctgtctctct tgggtgggga cgtgggcaat  
3120  
cctgaggagg tcagactgtt cagcaaaggc tttctgggtg ccttgggtgca agtcatgcct  
3180  
tgggtgcagc ctcaggagtg gcagcgcctt caccagctga ccaggagact gctggagaag  
3240  
cagctcctcc atgtccctta tagcctggaa tatattcagt ttgttccctt gctcaacctg  
3300  
aagccctttg cccaggagt t gcaactctcc gtccctcttc tgaggacttt ccagtttctc  
3360  
tgcagccata gctgtcgtaa ttggcttctt ctggaaggct ggaaccacgt ggtcaaactc  
3420  
ctctgtggca gtctgacctg cctcctggac tcagtcaggg cgatacaggc agctggccct  
3480  
tgggttcaag gaccagagca ggacctgacc caggaagccc tgtttgttta caccaggtg  
3540  
ttctgccatg ctctgcacat catggccatg ctccaccg aggtctgtga gccactctac  
3600  
gttttagcct tggaaaccct cacctgctat gagactttga gcaagaccaa cccttctgtc  
3660  
agctccttgc tccagagggc acacgagcag tgcttcttaa agtccattgc tgagggcac  
3720  
ggccctgaag aacggcgcca aaccctgttg cagaagatga gcagcttctg acttggcgtg  
3780  
gggagctggg cccaacatg gcgggtctgc agaagatcag cagcttctta cctgtgcggg  
3840  
agcgaaaaag ctgggcttca acatggcagg tctgtagggg tcagaccga gcagcctgga  
3900  
ctttacagtt atgtgaaact gtccacaaaa agtcatggca ataatggtgt aaagaaaata  
3960  
gtttcttggg tatttgtaac gtacaaacta tcataaaaat tctcctcttt cgcattctac  
4020  
tttgtctctt ctaagtcggc ctcagcaata gccaggatt aaatatgctc tgaaattggg  
4080  
tttagtgtct tcaagatcaa atccagccgg gaggaacatg ttcataactg gacttttcca  
4140  
tcctagattt tggcaaataa gcccaaagt gaaaccatgt gagtggaaaa agcattacat  
4200  
ggtacgtata acccccaaaa aaaa  
4224



<210> 988  
 <211> 873  
 <212> PRT  
 <213> Homo sapiens

<400> 988

Ala	His	Lys	Tyr	Leu	Pro	Ala	Leu	Asp	Glu	Phe	Pro	His	Pro	Pro	Lys
1				5					10					15	
Arg	Leu	Arg	Ser	Asp	Pro	Asp	Ala	Cys	Pro	Thr	Met	Pro	Leu	Leu	Ala
			20					25					30		
Met	Leu	Leu	Arg	Gly	Leu	Thr	Gln	Ile	Gln	Ser	Arg	Ile	Leu	Gly	Pro
			35				40					45			
Gly	Arg	Lys	Cys	Cys	Ala	Leu	Ala	Asn	Leu	Ala	Asp	Met	Leu	Thr	Val
			50				55				60				
Phe	Ala	Leu	Thr	Glu	Asp	Asp	Pro	Gln	Glu	Val	Ser	Ala	Thr	Val	Tyr
65					70					75					80
Leu	Asp	Lys	Leu	Ala	Thr	Val	Ile	Ser	Val	Trp	Asn	Ser	Asp	Thr	Gln
				85					90					95	
Asn	Pro	Tyr	His	Gln	Gln	Ala	Leu	Ala	Glu	Lys	Val	Lys	Glu	Ala	Glu
			100					105					110		
Arg	Asp	Val	Ser	Leu	Thr	Ser	Leu	Ala	Lys	Leu	Pro	Ser	Glu	Thr	Ile
			115					120					125		
Phe	Val	Gly	Cys	Glu	Phe	Leu	His	His	Leu	Leu	Arg	Glu	Trp	Gly	Glu
			130				135					140			
Glu	Leu	Gln	Ala	Val	Leu	Arg	Ser	Ser	Gln	Gly	Thr	Ser	Tyr	Asp	Ser
145					150					155					160
Tyr	Arg	Leu	Cys	Asp	Ser	Leu	Thr	Ser	Phe	Ser	Gln	Asn	Ala	Thr	Leu
				165					170					175	
Tyr	Leu	Asn	Arg	Thr	Ser	Leu	Ser	Lys	Glu	Asp	Arg	Gln	Val	Val	Ser
			180					185					190		
Glu	Leu	Ala	Glu	Cys	Val	Arg	Asp	Phe	Leu	Arg	Lys	Thr	Ser	Thr	Val
			195				200					205			
Leu	Lys	Asn	Arg	Ala	Leu	Glu	Asp	Ile	Thr	Ala	Ser	Ile	Ala	Met	Ala
			210				215				220				
Val	Ile	Gln	Gln	Lys	Met	Asp	Arg	His	Met	Glu	Val	Cys	Tyr	Ile	Phe
225					230					235					240
Ala	Ser	Glu	Lys	Lys	Trp	Ala	Phe	Ser	Asp	Glu	Trp	Val	Ala	Cys	Leu
				245					250					255	
Gly	Ser	Asn	Arg	Ala	Leu	Phe	Arg	Glu	Pro	Asp	Leu	Val	Leu	Arg	Leu
			260					265					270		
Leu	Glu	Thr	Val	Ile	Asp	Val	Ser	Thr	Ala	Asp	Arg	Ala	Ile	Pro	Glu
			275				280					285			
Ser	Gln	Ile	Arg	Gln	Val	Ile	His	Leu	Ile	Leu	Glu	Cys	Tyr	Ala	Asp
			290				295				300				
Leu	Ser	Leu	Pro	Gly	Lys	Asn	Lys	Val	Leu	Ala	Gly	Ile	Leu	Arg	Ser
305					310					315					320
Trp	Gly	Arg	Lys	Gly	Leu	Ser	Glu	Lys	Leu	Leu	Ala	Tyr	Val	Glu	Gly
				325					330					335	
Phe	Gln	Glu	Asp	Leu	Asn	Thr	Thr	Phe	Asn	Gln	Leu	Thr	Gln	Ser	Ala
				340				345					350		
Ser	Glu	Gln	Gly	Leu	Ala	Lys	Ala	Val	Ala	Ser	Val	Ala	Arg	Leu	Val
			355				360					365			
Ile	Val	His	Pro	Glu	Val	Thr	Val	Lys	Lys	Met	Cys	Ser	Leu	Ala	Val

370	375	380
Val Asn Leu Gly Thr His Lys Phe Leu Ala Gln Ile Leu Thr Ala Phe		
385	390	395
Pro Ala Leu Arg Phe Val Glu Val Gln Gly Pro Asn Ser Ser Ala Thr		400
	405	410
Phe Met Val Ser Cys Leu Lys Glu Thr Val Trp Met Lys Phe Ser Thr		415
	420	425
Pro Lys Glu Glu Lys Gln Phe Leu Glu Leu Leu Asn Cys Leu Met Ser		430
	435	440
Pro Val Lys Pro Gln Gly Ile Pro Val Ala Ala Leu Leu Glu Pro Asp		445
	450	455
Glu Val Leu Lys Glu Phe Val Leu Pro Phe Leu Arg Leu Asp Val Glu		460
465	470	475
Glu Val Asp Leu Ser Leu Arg Ile Phe Ile Gln Thr Leu Glu Ala Asn		480
	485	490
Ala Cys Arg Glu Glu Tyr Trp Leu Gln Thr Cys Ser Pro Phe Pro Leu		495
	500	505
Leu Phe Ser Leu Cys Gln Leu Leu Asp Arg Phe Ser Lys Tyr Trp Gln		510
	515	520
Leu Pro Lys Glu Lys Arg Cys Leu Ser Leu Asp Arg Lys Asp Leu Ala		525
	530	535
Ile His Ile Leu Glu Leu Leu Cys Glu Ile Val Ser Ala Asn Ala Glu		540
545	550	555
Thr Phe Ser Pro Asp Val Trp Ile Lys Ser Leu Ser Trp Leu His Arg		560
	565	570
Lys Leu Glu Gln Leu Asp Trp Thr Val Gly Leu Arg Leu Lys Ser Phe		575
	580	585
Phe Glu Gly His Phe Lys Cys Glu Val Pro Ala Thr Leu Phe Glu Ile		590
	595	600
Cys Lys Leu Ser Glu Asp Glu Trp Thr Ser Gln Ala His Pro Gly Tyr		605
	610	615
Gly Ala Gly Thr Gly Leu Leu Ala Trp Met Glu Cys Cys Cys Val Ser		620
625	630	635
Ser Gly Ile Ser Glu Arg Met Leu Ser Leu Leu Val Val Asp Val Gly		640
	645	650
Asn Pro Glu Glu Val Arg Leu Phe Ser Lys Gly Phe Leu Val Ala Leu		655
	660	665
Val Gln Val Met Pro Trp Cys Ser Pro Gln Glu Trp Gln Arg Leu His		670
	675	680
Gln Leu Thr Arg Arg Leu Leu Glu Lys Gln Leu Leu His Val Pro Tyr		685
	690	695
Ser Leu Glu Tyr Ile Gln Phe Val Pro Leu Leu Asn Leu Lys Pro Phe		700
705	710	715
Ala Gln Glu Leu Gln Leu Ser Val Leu Phe Leu Arg Thr Phe Gln Phe		720
	725	730
Leu Cys Ser His Ser Cys Arg Asn Trp Leu Pro Leu Glu Gly Trp Asn		735
	740	745
His Val Val Lys Leu Leu Cys Gly Ser Leu Thr Arg Leu Leu Asp Ser		750
	755	760
Val Arg Ala Ile Gln Ala Ala Gly Pro Trp Val Gln Gly Pro Glu Gln		765
	770	775
Asp Leu Thr Gln Glu Ala Leu Phe Val Tyr Thr Gln Val Phe Cys His		780
785	790	795
Ala Leu His Ile Met Ala Met Leu His Pro Glu Val Cys Glu Pro Leu		800

				805					810					815			
Tyr	Val	Leu	Ala	Leu	Glu	Thr	Leu	Thr	Cys	Tyr	Glu	Thr	Leu	Ser	Lys		
			820						825					830			
Thr	Asn	Pro	Ser	Val	Ser	Ser	Leu	Leu	Gln	Arg	Ala	His	Glu	Gln	Cys		
		835						840					845				
Phe	Leu	Lys	Ser	Ile	Ala	Glu	Gly	Ile	Gly	Pro	Glu	Glu	Arg	Arg	Gln		
	850					855					860						
Thr	Leu	Leu	Gln	Lys	Met	Ser	Ser	Phe									
865					870												

<210> 989  
 <211> 402  
 <212> DNA  
 <213> Homo sapiens

<400> 989  
 gcgtgggata tcgatacccg tcttgagcag gccatggacg ccttgcaagtg cccccaggc  
 60  
 gacaccctg ttgacgtctt gtcaggcggt gagcggcgct gtgtcgcgct atgcaagctg  
 120  
 ttgatcgagc agcctgacct gctgcttctc gatgagccca ccaaccacct ggatgctgag  
 180  
 tctgtcaact ggttggaggg acacctcaag tcctatccgg gagctgtgct agccgtcact  
 240  
 cacgaccgct atttccttga tcacgtcgcc gaggatct gtgaggtcga tcgcggccag  
 300  
 ttgcaccctt acgagggcaa ctactcgacg tacctggaca ccaagcgcaa gcgtctccag  
 360  
 atcgaaggca agaaagacgc taaacgcgcc aagatcctcg ag  
 402

<210> 990  
 <211> 134  
 <212> PRT  
 <213> Homo sapiens

Ala	Trp	Asp	Ile	Asp	Thr	Arg	Leu	Glu	Gln	Ala	Met	Asp	Ala	Leu	Gln		
1				5				10					15				
Cys	Pro	Pro	Gly	Asp	Thr	Pro	Val	Asp	Val	Leu	Ser	Gly	Gly	Glu	Arg		
		20					25					30					
Arg	Arg	Val	Ala	Leu	Cys	Lys	Leu	Leu	Ile	Glu	Gln	Pro	Asp	Leu	Leu		
		35				40					45						
Leu	Leu	Asp	Glu	Pro	Thr	Asn	His	Leu	Asp	Ala	Glu	Ser	Val	Asn	Trp		
	50				55				60								
Leu	Glu	Gly	His	Leu	Lys	Ser	Tyr	Pro	Gly	Ala	Val	Leu	Ala	Val	Thr		
65			70				75						80				
His	Asp	Arg	Tyr	Phe	Leu	Asp	His	Val	Ala	Glu	Trp	Ile	Cys	Glu	Val		
		85				90						95					
Asp	Arg	Gly	Gln	Leu	His	Pro	Tyr	Glu	Gly	Asn	Tyr	Ser	Thr	Tyr	Leu		
		100				105					110						
Asp	Thr	Lys	Arg	Lys	Arg	Leu	Gln	Ile	Glu	Gly	Lys	Lys	Asp	Ala	Lys		
	115					120					125						
Arg	Ala	Lys	Ile	Leu	Glu												

130

<210> 991  
<211> 359  
<212> DNA  
<213> Homo sapiens

<400> 991  
tctagaatta aagccaaaaa aactcaggct gaagtggcag aagctgtaaa gatgtcgcaa  
60  
cccgcctatc aggcctttaga gtcagggaaa aatttaaaat ctgcatttct tcctttaatt  
120  
gcccaatttt taggagtaga tggttattgg ttaacgacgg ggaatactga agattctttt  
180  
agagaaagtg atgtatttag cccgactgta gtgagtgcag aatctactga tcagtatgtt  
240  
tggattgaag ttgtagaagc taacttttct tgcgggacag gtgaatctat tgaatttcac  
300  
tttgatgcta ttaatggaaa aattccattc cctgcttcat tctttaaaga aaaacgcgt  
359

<210> 992  
<211> 119  
<212> PRT  
<213> Homo sapiens

<400> 992  
Ser Arg Ile Lys Ala Lys Lys Thr Gln Ala Glu Val Ala Glu Ala Val  
1 5 10 15  
Lys Met Ser Gln Pro Ala Tyr Gln Ala Leu Glu Ser Gly Lys Asn Leu  
20 25 30  
Lys Ser Ala Phe Leu Pro Leu Ile Ala Gln Phe Leu Gly Val Asp Gly  
35 40 45  
Tyr Trp Leu Thr Thr Gly Asn Thr Glu Asp Ser Phe Arg Glu Ser Asp  
50 55 60  
Val Phe Ser Pro Thr Val Val Ser Ala Glu Ser Thr Asp Gln Tyr Val  
65 70 75 80  
Trp Ile Glu Val Val Glu Ala Asn Phe Ser Cys Gly Thr Gly Glu Ser  
85 90 95  
Ile Glu Phe His Phe Asp Ala Ile Asn Gly Lys Ile Pro Phe Pro Ala  
100 105 110  
Ser Phe Phe Lys Glu Lys Arg  
115

<210> 993  
<211> 450  
<212> DNA  
<213> Homo sapiens

<400> 993  
ngcgcgccgg gcaccacata cgacgacggg acgttattca cctctaactg gtagccgccg  
60  
tcgcggtccg gatccgcgat gatggccgcg tggcctgaag caatggggta ggtgcccgtg  
120

atgcgtcgct ttggcgcacg aggtttacgc cgtggggagt tcataaggga aataccagca  
 180  
 cagggtcgga ccagttgtta cgatcgctgc atgatctact tgtcgcagga ttatatcggt  
 240  
 gagctacca agcaacatat ctcgctggga aagtttgatc ccgacaatat tcctgcggac  
 300  
 ccgaacgaac tgtttgccac gtggttttaa gaagccgttg agaacgaagt cggcgaccct  
 360  
 actgcggtca ccgtggccac ggtggacgac aacggtcagc ccgatgcgcg agtcgtcgac  
 420  
 cttctgtacc tcaactccga cggcttccac  
 450

<210> 994  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 994  
 Met Arg Arg Phe Gly Ala Arg Gly Leu Arg Arg Gly Glu Phe Ile Arg  
                   5                  10                  15  
 1  
 Glu Ile Pro Ala Gln Gly Arg Thr Ser Cys Tyr Asp Arg Cys Met Ile  
                   20                  25                  30  
 Tyr Leu Ser Gln Asp Tyr Ile Gly Glu Leu Pro Lys Gln His Ile Ser  
                   35                  40                  45  
 Leu Gly Lys Phe Asp Pro Asp Asn Ile Pro Ala Asp Pro Asn Glu Leu  
                   50                  55                  60  
 Phe Ala Thr Trp Phe Lys Glu Ala Val Glu Asn Glu Val Gly Asp Pro  
 65                  70                  75                  80  
 Thr Ala Val Thr Val Ala Thr Val Asp Asp Asn Gly Gln Pro Asp Ala  
                   85                  90                  95  
 Arg Val Val Asp Leu Leu Tyr Leu Asn Ser Asp Gly Phe His  
                   100                  105                  110

<210> 995  
 <211> 924  
 <212> DNA  
 <213> Homo sapiens

<400> 995  
 cgggagctgg tggaccagga cgtgcagcct gcccgtacc acatcgccctt tgggcccgtg  
 60  
 gtggatggcg acgtgggtccc cgatgaccct gagatcctca tgcagcaggg agaattcctc  
 120  
 aactacgaca tgctcatcgg cgtcaaccag ggagagggcc tcaagttcgt ggaggactct  
 180  
 gcagagagcg aggacggtgt gtctgccagc gcctttgact tcaactgtctc caactttgtg  
 240  
 gacaacctgt atggctaccc ggaaggcaag gatgtgcttc gggagaccat caagtttatg  
 300  
 tacacagact gggccgaccg ggacaatggc gaaatgcgcc gcaaaaccct gctggcgctc  
 360  
 tttactgacc accaatgggt ggcaccagct gtggccactg ccaagctgca cgccgactac  
 420

cagtctcccg tctactttta caccttctac caccactgcc aggcggaggg ccggcctgag  
 480  
 tgggcagatg cggcgcacgg ggatgaactg ccctatgtct ttggcgtgcc catggtgggt  
 540  
 gccaccgacc tcttcccttg taacttctcc aagaatgacg tcatgctcag tgccgtgggc  
 600  
 atgacctact ggaccaactt cgccaagact ggggacccca accagccggt gccgcaggat  
 660  
 accaagttca tccacaccaa gcccaatcgc ttcgaggagg tgggtgtggag caaattcaac  
 720  
 agcaaggaga agcagtatct gcacataggc ctgaagccac gcgtgcgtga caactaccgc  
 780  
 gccacaagg tggccttctg gctggagctc gtgccccacc tgcacaacct gcacacggag  
 840  
 ctcttcacca ccaccacggc cctgcctccc tacgccacgc gctggccgcc tcgtcccccc  
 900  
 gctggcgccc cgggcacacg ccgg  
 924

<210> 996  
 <211> 308  
 <212> PRT  
 <213> Homo sapiens

<400> 996  
 Arg Glu Leu Val Asp Gln Asp Val Gln Pro Ala Arg Tyr His Ile Ala  
 1 5 10 15  
 Phe Gly Pro Val Val Asp Gly Asp Val Val Pro Asp Asp Pro Glu Ile  
 20 25 30  
 Leu Met Gln Gln Gly Glu Phe Leu Asn Tyr Asp Met Leu Ile Gly Val  
 35 40 45  
 Asn Gln Gly Glu Gly Leu Lys Phe Val Glu Asp Ser Ala Glu Ser Glu  
 50 55 60  
 Asp Gly Val Ser Ala Ser Ala Phe Asp Phe Thr Val Ser Asn Phe Val  
 65 70 75 80  
 Asp Asn Leu Tyr Gly Tyr Pro Glu Gly Lys Asp Val Leu Arg Glu Thr  
 85 90 95  
 Ile Lys Phe Met Tyr Thr Asp Trp Ala Asp Arg Asp Asn Gly Glu Met  
 100 105 110  
 Arg Arg Lys Thr Leu Leu Ala Leu Phe Thr Asp His Gln Trp Val Ala  
 115 120 125  
 Pro Ala Val Ala Thr Ala Lys Leu His Ala Asp Tyr Gln Ser Pro Val  
 130 135 140  
 Tyr Phe Tyr Thr Phe Tyr His His Cys Gln Ala Glu Gly Arg Pro Glu  
 145 150 155 160  
 Trp Ala Asp Ala Ala His Gly Asp Glu Leu Pro Tyr Val Phe Gly Val  
 165 170 175  
 Pro Met Val Gly Ala Thr Asp Leu Phe Pro Cys Asn Phe Ser Lys Asn  
 180 185 190  
 Asp Val Met Leu Ser Ala Val Val Met Thr Tyr Trp Thr Asn Phe Ala  
 195 200 205  
 Lys Thr Gly Asp Pro Asn Gln Pro Val Pro Gln Asp Thr Lys Phe Ile  
 210 215 220  
 His Thr Lys Pro Asn Arg Phe Glu Glu Val Val Trp Ser Lys Phe Asn

```
<210> 997
<211> 320
<212> DNA
<213> Homo sapiens
```

```
<210> 998
<211> 106
<212> PRT
<213> Homo sapiens
```

<210> 999  
<211> 401

<212> DNA

<213> Homo sapiens

<400> 999

acgcgttcag gcggttaaca atcgcgctaa gaagctgacc aaggaaaatg tcggcatggc  
60  
acatctgagc aagagcttca tcggtgttta tctctactca gaaggcaagt ttgtgaccag  
120  
caactarctc aatcgtggct acaaggacat tctgagctat gcagacgatg ctagtctttt  
180  
gcaaaagcct ccagcagtgg cttcagatga tctggatata ggtctcttga agagggcctt  
240  
ggatgagtgg gtggctgatg ctaagaacca cattctcaat actgaaaact tcttttagcgg  
300  
gtcaaccggc ctcaacattg acagtttcta cgtctttggc gaccaagaca tctgctggca  
360  
gttggcagct attctgaagc agagcatgaa tcgggaattg t  
401

<210> 1000

<211> 115

<212> PRT

<213> Homo sapiens

<400> 1000

Met	Val	His	Leu	Ser	Lys	Ser	Phe	Ile	Gly	Val	Tyr	Leu	Tyr	Ser	Glu
1				5					10					15	
Gly	Lys	Phe	Val	Thr	Ser	Asn	Tyr	Leu	Asn	Arg	Gly	Tyr	Lys	Asp	Ile
			20					25					30		
Leu	Ser	Tyr	Ala	Asp	Asp	Ala	Ser	Leu	Leu	Gln	Lys	Pro	Pro	Ala	Val
		35					40					45			
Ala	Ser	Asp	Asp	Leu	Asp	Thr	Gly	Leu	Leu	Lys	Arg	Ala	Leu	Asp	Glu
	50					55					60				
Trp	Val	Ala	Asp	Ala	Lys	Asn	His	Ile	Leu	Asn	Thr	Glu	Asn	Phe	Phe
65					70					75				80	
Ser	Gly	Ser	Thr	Gly	Leu	Asn	Ile	Asp	Ser	Phe	Tyr	Val	Phe	Gly	Asp
			85					90					95		
Gln	Asp	Ile	Cys	Trp	Gln	Leu	Ala	Ala	Ile	Leu	Lys	Gln	Ser	Met	Asn
			100					105					110		
Arg	Glu	Leu													
															115

<210> 1001

<211> 351

<212> DNA

<213> Homo sapiens

<400> 1001

cgcggtattg caatgcgcct ggtgccgaat gctaaacctg ctcttgattg cccggtactg  
60  
ttcccttatg cccctaattgc ggtgattgtt ggcttcctgg ccactaccgt tggttcaatt  
120  
atcggtatga ttgtcttccc gctgtttggc ctggcgatga tccttcgggg tctgctaact  
180



aacttcttcg ctggtggtgc cgctggagtc tttggcaacg cgatgggagg acgtaaaggg  
 240  
 gcaattattg gcggcgtagt gcacgggctg tttatcaccc tgttaccagc gatgctaate  
 300  
 cccttactgg aaaccttcgg cttcaaaggc gtcaccttca gtgattccga t  
 351

<210> 1002  
 <211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 1002  
 Arg Gly Ile Ala Met Arg Leu Val Pro Asn Ala Lys Pro Ala Leu Asp  
 1 5 10 15  
 Cys Pro Val Leu Phe Pro Tyr Ala Pro Asn Ala Val Ile Val Gly Phe  
 20 25 30  
 Leu Ala Thr Thr Val Gly Ser Ile Ile Gly Met Ile Val Phe Pro Leu  
 35 40 45  
 Phe Gly Leu Ala Met Ile Leu Pro Gly Leu Leu Thr Asn Phe Phe Ala  
 50 55 60  
 Gly Gly Ala Ala Gly Val Phe Gly Asn Ala Met Gly Gly Arg Lys Gly  
 65 70 75 80  
 Ala Ile Ile Gly Gly Val Val His Gly Leu Phe Ile Thr Leu Leu Pro  
 85 90 95  
 Ala Met Leu Ile Pro Leu Leu Glu Thr Phe Gly Phe Lys Gly Val Thr  
 100 105 110  
 Phe Ser Asp Ser Asp  
 115

<210> 1003  
 <211> 444  
 <212> DNA  
 <213> Homo sapiens

<400> 1003  
 acgcgtcctc ctttagtcga tcgcgaatat gataggcgaa gcgacgtgat ggtgtgacgc  
 60  
 acgagcactg ccccatctcc taggcttagg gttatgcaga ctcccatcga cgctacctcc  
 120  
 acccccgcacat ggggcacact ctccggccta aagtcccgct tcgctgacgg gccacataaa  
 180  
 ctgcgcggtt tggtcgacgc cgacctcac cgcgctgagc gctacacctt tgacgtcgcg  
 240  
 gatttgcacg tcgatttatc gaagaacctc cttaccgacg agattcgtga cgctctcttc  
 300  
 gaactggctg cgcagatgcg cgtcaccgag cgtcgtgacg cgatgtatgc cggtgagcac  
 360  
 atcaacgtca ccgaggaccg cgccgtcctc cataccgcgc tgtgtcgtcc ccgcactgac  
 420  
 gagctgcatg ttgacgggtca ggat  
 444

<210> 1004

<211> 117  
 <212> PRT  
 <213> Homo sapiens

<400> 1004  
 Met Gln Thr Pro Ile Asp Ala Thr Ser Thr Pro Ala Trp Gly Thr Leu  
 1 5 10 15  
 Ser Gly Leu Lys Ser Arg Phe Ala Asp Gly Pro His Lys Leu Arg Arg  
 20 25 30  
 Leu Phe Asp Ala Asp Pro His Arg Ala Glu Arg Tyr Thr Phe Asp Val  
 35 40 45  
 Ala Asp Leu His Val Asp Leu Ser Lys Asn Leu Leu Thr Asp Glu Ile  
 50 55 60  
 Arg Asp Ala Leu Leu Glu Leu Ala Ala Gln Met Arg Val Thr Glu Arg  
 65 70 75 80  
 Arg Asp Ala Met Tyr Ala Gly Glu His Ile Asn Val Thr Glu Asp Arg  
 85 90 95  
 Ala Val Leu His Thr Ala Leu Cys Arg Pro Arg Thr Asp Glu Leu His  
 100 105 110  
 Val Asp Gly Gln Asp  
 115

<210> 1005  
 <211> 299  
 <212> DNA  
 <213> Homo sapiens

<400> 1005  
 ccatggccat tcctctggtg actgcatcca gtccgatgga tttaaaccacc cccaatgtgc  
 60  
 tgggtgactcc caagttttaca cctccagcca gggcttctct cctggggtttg cataccacc  
 120  
 tatctatctg ccttagccac tcgtgtctga cgagcacctc acacctccag aggctcctca  
 180  
 tttcttccca tgcttgettc tcccacactc ctccctctca catgagggca acttcacct  
 240  
 cccagttgct caggccccaac acctccatca gttttgactc ttctctcgca cactactcg  
 299

<210> 1006  
 <211> 99  
 <212> PRT  
 <213> Homo sapiens

<400> 1006  
 Met Ala Ile Pro Leu Val Thr Ala Ser Ser Pro Met Asp Leu Asn Thr  
 1 5 10 15  
 Pro Asn Val Leu Val Thr Pro Lys Phe Thr Pro Pro Ala Arg Ala Ser  
 20 25 30  
 Leu Leu Gly Leu His Thr His Leu Ser Ile Cys Leu Ser His Ser Cys  
 35 40 45  
 Leu Thr Ser Thr Ser His Leu Gln Arg Leu Leu Ile Ser Ser His Ala  
 50 55 60  
 Cys Phe Ser His Thr Pro Pro Ser His Met Arg Ala Thr Ser Ser Ser

```
<210> 1007
<211> 389
<212> DNA
<213> Homo sapiens
```

```
<210> 1008
<211> 105
<212> PRT
<213> Homo sapiens
```

```
<210> 1009
<211> 324
<212> DNA
<213> Homo sapiens
```

~~BN300010: WO 0058473A2\_1\_~~

ngccttcacg gctgntatgc ctggcctcat ccccatccct ggcacccgtg acgatagcca  
 60  
 cattccactg gtgtttcccc aggaaagcca accctacctg catctcagca gagcttccac  
 120  
 ggagttggaa ccccgctccg agaggggtgtg ggctcagggg ccaggggtca cacaaactcc  
 180  
 agaaggagga cgtagttggt ttgcaaggct gtcctttgcc ctgggtgaat aaccttcggt  
 240  
 ctgccccgag aggaacgtgg gcattaggct gcacccgcag gaagccatgt attttctgag  
 300  
 aaacttggcc catggtgcag atct  
 324

<210> 1010  
 <211> 104  
 <212> PRT  
 <213> Homo sapiens

<400> 1010  
 Met Gly Gln Val Ser Gln Lys Ile His Gly Phe Leu Arg Val Gln Pro  
 1 5 10 15  
 Asn Ala His Val Pro Leu Gly Ala Asp Arg Arg Leu Phe Asn Gln Gly  
 20 25 30  
 Lys Gly Gln Pro Cys Lys Pro Thr Thr Ser Ser Phe Trp Ser Leu Cys  
 35 40 45  
 Asp Pro Trp Pro Leu Ser Pro His Pro Leu Gly Ala Gly Phe Gln Leu  
 50 55 60  
 Arg Gly Ser Ser Ala Glu Met Gln Val Gly Leu Ala Phe Leu Gly Lys  
 65 70 75 80  
 His Gln Trp Asn Val Ala Ile Val Thr Gly Ala Arg Asp Gly Asp Glu  
 85 90 95  
 Ala Arg His Xaa Ser His Glu Gly  
 100

<210> 1011  
 <211> 330  
 <212> DNA  
 <213> Homo sapiens

<400> 1011  
 ctgcagaaaa ggaggggggt cccatgccaa ggcagaactg tctgggacag acgctgcccg  
 60  
 gatccctgcg gctgcctgca ctctggacca cgagctctga gagcagcagg ttgagggccg  
 120  
 gtgggcagca gctcggaggc tccgcgaggt gcaggagacg caggcatggc cggtagagctg  
 180  
 actcctgagg aggaggccca gtacaaaaag gctttctccg cggttgacac ggatggaaac  
 240  
 ggcaccatca atgcccagga gctgggacgc gcgctgaagg ccacgggcaa gaacctctcg  
 300  
 gaggcccagc taaagaaact catctccgag  
 330

<210> 1012



				85					90				95
Val	Ala	Asp	Tyr	Leu	Ala	Ile	Gly	Ile	Asp	Pro	Thr	Arg	
				100				105					

<210> 1015  
 <211> 467  
 <212> DNA  
 <213> Homo sapiens

<400> 1015  
 nngaattcga tggctgtgaa aggtcgagct ctttaagtgtt ttcatatccc ctgtgtgggt  
 60  
 gaaaacttcc cgatgaaagc gcgcacgggt gaagagctga aagaattgga aagagtttta  
 120  
 cagcaaaaga agattgaagc agagtgtctt aaactacgga aggaaattgt agaggctcag  
 180  
 tctggagtta agttgattaa acagcgtcat gaagaggatg atgaagaaga ggaagaggaa  
 240  
 gacaagacag taaaatatag caatttgccc aattacctgc ttggtagtct gagtactgat  
 300  
 tttggggtag atacctcttt attgtcaagc caattggagc ttcattccag agaagagaaa  
 360  
 atcaaccaaa ttatattatt gaaagatata atttacaagg taaaaactgt tttcaataat  
 420  
 gagtttgacg ctgcatataa acaaaaagag tttgaaattg cacgcgt  
 467

<210> 1016  
 <211> 155  
 <212> PRT  
 <213> Homo sapiens

<400> 1016  
 Xaa Asn Ser Met Ala Val Lys Gly Arg Ala Leu Lys Cys Phe His Ile  
 1 5 10 15  
 Pro Cys Val Val Glu Asn Phe Pro Met Lys Ala Arg Thr Val Glu Glu  
 20 25 30  
 Leu Lys Glu Leu Glu Arg Val Leu Gln Gln Lys Lys Ile Glu Ala Glu  
 35 40 45  
 Cys Leu Lys Leu Arg Lys Glu Ile Val Glu Ala Gln Ser Gly Val Lys  
 50 55 60  
 Leu Ile Lys Gln Arg His Glu Glu Asp Asp Glu Glu Glu Glu Glu  
 65 70 75 80  
 Asp Lys Thr Val Lys Tyr Ser Asn Leu Pro Asn Tyr Leu Leu Gly Ser  
 85 90 95  
 Leu Ser Thr Asp Phe Gly Val Asp Thr Ser Leu Leu Ser Ser Gln Leu  
 100 105 110  
 Glu Leu His Ser Arg Glu Glu Lys Ile Asn Gln Ile Ile Leu Leu Lys  
 115 120 125  
 Asp Ile Ile Tyr Lys Val Lys Thr Val Phe Asn Asn Glu Phe Asp Ala  
 130 135 140  
 Ala Tyr Lys Gln Lys Glu Phe Glu Ile Ala Arg  
 145 150 155

<210> 1017  
 <211> 335  
 <212> DNA  
 <213> Homo sapiens

<400> 1017  
 acgcgtggct gggtgggtat gtggaaccat gtgcgcgcta atgagaagga tgcgaagggg  
 60  
 aacattaaag tgggtcgccc cggctacttt gcggagggtca tggatttcta tgcgcattat  
 120  
 ctgaagggtg cggttaccgg tttccgtccg aattttattg tgcaggataa tacgggcccgt  
 180  
 tggcgtgttc agtcgtcgtg gccgcagccg aatcgactg ttacttttgc gggaccccgc  
 240  
 ggcattgtcc gctacggtac gacgttggcg gccgcacgc atgggaatgg tcaggctatt  
 300  
 ccgcaggcgg atgcacagtc tcttaaccgc gagaa  
 335

<210> 1018  
 <211> 105  
 <212> PRT  
 <213> Homo sapiens

<400> 1018  
 Met Trp Asn His Val Arg Ala Asn Glu Lys Asp Ala Lys Gly Asn Ile  
 1 5 10 15  
 Lys Val Gly Arg Pro Gly Tyr Phe Ala Glu Val Met Asp Phe Tyr Ala  
 20 25 30  
 His Tyr Leu Lys Gly Ala Val Thr Arg Phe Arg Pro Asn Phe Ile Val  
 35 40 45  
 Gln Asp Asn Thr Gly Arg Trp Arg Val Gln Ser Ser Trp Pro Gln Pro  
 50 55 60  
 Asn Arg Thr Val Thr Phe Ala Gly Pro Arg Gly Ile Val Arg Tyr Gly  
 65 70 75 80  
 Thr Thr Leu Ala Ala Arg Thr His Gly Asn Gly Gln Ala Ile Pro Gln  
 85 90 95  
 Ala Asp Ala Gln Ser Leu Asn Arg Glu  
 100 105

<210> 1019  
 <211> 454  
 <212> DNA  
 <213> Homo sapiens

<400> 1019  
 acgcgtgaag gggtagtcgt agtagaagtc gtccacaaac acgggccccg gcagggtccag  
 60  
 ctctggagcc tcctcctcaa tggcgttgcc catggtgcct ggcttgggtg atgaggcggg  
 120  
 tgaagggcgt ggggccagggt ggtgcgggat gaagtcagcc tcgttgaaga gtcgtggct  
 180  
 ggaggagccg ctgcctgagc cttcagggcc cagtgtgcc agggggccacc gacagagtgg  
 240

cagagagcag gtgacttcct ggcactgcgg agcgaggacc cggagaagta cttcctcaat  
 300  
 ggtggctgga ccatccagtg gaacggggac taccaggtgg cagggaccac cttcacatac  
 360  
 gcacgcaggg gcaactggga gaacctcacg tccccgggtc ccaccaagga gcctgtctgg  
 420  
 atccagctgc tgttccagga gagcaaccct gggg  
 454

<210> 1020  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 1020  
 Met Ala Leu Pro Met Val Pro Gly Leu Gly Asp Glu Ala Gly Glu Gly  
 1 5 10 15  
 Arg Gly Ala Arg Trp Cys Gly Met Lys Ser Ala Ser Leu Lys Ser Ser  
 20 25 30  
 Trp Leu Glu Glu Pro Leu Pro Glu Pro Ser Gly Pro Ser Val Pro Arg  
 35 40 45  
 Gly His Arg Gln Ser Gly Arg Glu Gln Val Thr Ser Trp His Cys Gly  
 50 55 60  
 Ala Arg Thr Arg Arg Ser Thr Ser Ser Met Val Ala Gly Pro Ser Ser  
 65 70 75 80  
 Gly Thr Gly Thr Thr Arg Trp Gln Gly Pro Pro Ser His Thr His Ala  
 85 90 95  
 Gly Ala Thr Gly Arg Thr Ser Arg Pro Arg Val Pro Pro Arg Ser Leu  
 100 105 110  
 Ser Gly Ser Ser Cys Cys Ser Arg Arg Ala Thr Leu Gly  
 115 120 125

<210> 1021  
 <211> 366  
 <212> DNA  
 <213> Homo sapiens

<400> 1021  
 cagctgtgtc gtgacctcct gtagaccaga gagaggtaga gcatgaaaaa tgctcattga  
 60  
 gccgagatta tctgacagga ccaaagcata taaagttgac tgaagcagga gcaaacacgc  
 120  
 tggttgaggg tcaagtgtg gggcagcagc aacaacaaac caaaaaaag ccctttgaac  
 180  
 tcccttaatg ttgcccaaag gttctggtag agaacaagtc acatgcctaa gaaggtcttt  
 240  
 taaagggcac tcttgagtt tcagcatttg gtccggggaa ttgcacaagg ctctgcttaa  
 300  
 atgcagagct ctttctagca tcttcatatt caaggcggaa aaactgagct tggcgaggaa  
 360  
 ccctgt  
 366

<210> 1022



```

<400> 1022
Met Lys Met Leu Glu Arg Ala Leu His Leu Ser Arg Ala Leu Cys Asn
 1          5          10          15
Ser Pro Asp Gln Met Leu Lys Leu Gln Glu Cys Pro Leu Lys Asp Leu
 20          25          30
Leu Arg His Val Thr Cys Ser Leu Pro Glu Pro Leu Gly Asn Ile Lys
 35          40          45
Gly Val Gln Arg Ala Phe Phe Trp Phe Val Val Ala Ala Ala Pro Ala
 50          55          60
Leu Asp Pro Gln Pro Ala Cys Leu Leu Leu Leu Gln Ser Thr Leu Tyr
 65          70          75          80
Ala Leu Val Leu Ser Asp Asn Leu Gly Ser Met Ser Ile Phe His Ala
 85          90          95
Leu Pro Leu Ser Gly Leu Gln Glu Val Thr Thr Gln Leu
 100          105

```

```

<400> 1023
gccgggcttc gggctcttga agcgatcaac ctggccgact cggatgcaga tctggacggc
60
ggcatcctga ccatacagca gaccaagttt ggcaagtccc gcatggtgcc gctacacccc
120
agcgtgatcg gtccgatggc agcctaccgg gccttgcgcc gccagtacgt gcctgcgaag
180
ccgcagatga cattcttcgt gggctcgcgt ggcgtgcacc ggggtgaacc gctgggagat
240
aggcaggtgc atcgagtgtt ctgtcagctg cgcgagcaat tgggttggat cgatcgcggc
300
ggccatggcc gaccgcgggt gcatgacctg cgccatagct tcgccgtgag acggatgatc
360
ctgtggcacc agcagggagc gaaccttgac caacgaatgc tggccctgtc cacgtacatg
420
ggccac
426

```

```

<400> 1024
Ala Gly Leu Arg Val Ser Glu Ala Ile Asn Leu Ala Asp Ser Asp Ala
  1          5          10          15
Asp Leu Asp Gly Gly Ile Leu Thr Ile Gln Gln Thr Lys Phe Gly Lys
  20          25          30
Ser Arg Met Val Pro Leu His Pro Ser Val Ile Gly Pro Met Ala Ala

```

```

      35      40      45
Tyr Arg Ala Leu Arg Arg Gln Tyr Val Pro Ala Lys Pro Gln Met Thr
  50      55      60
Phe Phe Val Gly Ser Arg Gly Val His Arg Gly Glu Pro Leu Gly Asp
  65      70      75      80
Arg Gln Val His Arg Val Phe Cys Gln Leu Arg Glu Gln Leu Gly Trp
      85      90      95
Ile Asp Arg Gly Gly His Gly Arg Pro Arg Val His Asp Leu Arg His
      100      105      110
Ser Phe Ala Val Arg Arg Met Ile Leu Trp His Gln Gln Gly Ala Asn
      115      120      125
Leu Asp Gln Arg Met Leu Ala Leu Ser Thr Tyr Met Gly His
      130      135      140

```

<210> 1025  
 <211> 518  
 <212> DNA  
 <213> Homo sapiens

```

<400> 1025
nacgcgtggt gcgcgcaggt ggcgcgcgcg tccctttgct ccctgcgcaa gccggagggg
  60
tgcccagaag gctaccacta gcctcagcga aggggtgcgc ctgagagccg ggtagcctcg
  120
gatagcggcg ctgcgtacgc gatgatggat gagccgtggt gggaagggcg cgtcgcctcg
  180
gacgtccact gcaccctgcg cgagaaggaa ctgaagctgc ccaccttccg agcccactcc
  240
ccactcctga agagccgccc gttcttcgtg gacatcctga ccctgctgag cagccactgc
  300
cagctctgcc ctgcagcccc gcacctggcc gtctacctgc tggaccactt catggatcgc
  360
tacaacgtca ccacctccaa gcagctctac accgtggccg tctcctgcct cctgcttgca
  420
agtaagtctg aggatcggga agaccacgtc cccaagttgg agcaaataaa cagcacgagg
  480
atcctgagca gccagaactt caccctcacc aagaagga
  518

```

<210> 1026  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

```

<400> 1026
Met Met Asp Glu Pro Trp Trp Glu Gly Arg Val Ala Ser Asp Val His
  1      5      10      15
Cys Thr Leu Arg Glu Lys Glu Leu Lys Leu Pro Thr Phe Arg Ala His
      20      25      30
Ser Pro Leu Leu Lys Ser Arg Arg Phe Phe Val Asp Ile Leu Thr Leu
      35      40      45
Leu Ser Ser His Cys Gln Leu Cys Pro Ala Ala Arg His Leu Ala Val
      50      55      60
Tyr Leu Leu Asp His Phe Met Asp Arg Tyr Asn Val Thr Thr Ser Lys

```

65		70		75		80									
Gln	Leu	Tyr	Thr	Val	Ala	Val	Ser	Cys	Leu	Leu	Leu	Ala	Ser	Lys	Phe
				85					90					95	
Glu	Asp	Arg	Glu	Asp	His	Val	Pro	Lys	Leu	Glu	Gln	Ile	Asn	Ser	Thr
			100					105					110		
Arg	Ile	Leu	Ser	Ser	Gln	Asn	Phe	Thr	Leu	Thr	Lys	Lys			
		115					120					125			

<210> 1027  
 <211> 465  
 <212> DNA  
 <213> Homo sapiens

<400> 1027  
 ggcccaaaag tcatcaaaga aaagctgaca caggagctga aggaccacaa cgccaccagc  
 60  
 atcctgcagc agctgccgct gctcaaggcc atgcgggaaa agccagccgg aggcattcct  
 120  
 gtgctgggca gcctgggtgaa caccngtctt gaagcacatc atnnctggct gaaggctatc  
 180  
 acagctaaca tcctccagct gcaggtgaag ccctcggcca atgaccagga gctgctagtc  
 240  
 aagatccccc tggacatggg ggctggattc aacacgcccc tggtaagac catcgtggag  
 300  
 ttccacatga cgactgaggc ccaagccacc atccgcatgg acaccagtgc aagtggcccc  
 360  
 accgcctgg tcctcagtga ctgtgccacc agccatggga gcctgcgcat ccaactgctg  
 420  
 cataagctct ccttcaagct gaacgcctca gctaagcagg tcatg  
 465

<210> 1028  
 <211> 155  
 <212> PRT  
 <213> Homo sapiens

<400> 1028
Gly Pro Lys Val Ile Lys Glu Lys Leu Thr Gln Glu Leu Lys Asp His
1 5 10 15
Asn Ala Thr Ser Ile Leu Gln Gln Leu Pro Leu Leu Lys Ala Met Arg
20 25 30
Glu Lys Pro Ala Gly Gly Ile Pro Val Leu Gly Ser Leu Val Asn Thr
35 40 45
Xaa Pro Glu Ala His His Xaa Trp Leu Lys Val Ile Thr Ala Asn Ile
50 55 60
Leu Gln Leu Gln Val Lys Pro Ser Ala Asn Asp Gln Glu Leu Leu Val
65 70 75 80
Lys Ile Pro Leu Asp Met Val Ala Gly Phe Asn Thr Pro Leu Val Lys
85 90 95
Thr Ile Val Glu Phe His Met Thr Thr Glu Ala Gln Ala Thr Ile Arg
100 105 110
Met Asp Thr Ser Ala Ser Gly Pro Thr Arg Leu Val Leu Ser Asp Cys
115 120 125
Ala Thr Ser His Gly Ser Leu Arg Ile Gln Leu Leu His Lys Leu Ser

130 135 140  
 Phe Lys Leu Asn Ala Ser Ala Lys Gln Val Met  
 145 150 155

<210> 1029  
 <211> 479  
 <212> DNA  
 <213> Homo sapiens

<400> 1029  
 acgcgtgaag ggaaactgtc ctcacagatg agtgtgaggg ttcaaaaaga tactgcctgc  
 60  
 caagcactgg ccacaaatgc ctggcagaac aactgctcat aagtgtgtag ttgttggttat  
 120  
 tattactaac caagtgagga aaattatccc tagcaggtcc agatgaccgt gtgcatgaat  
 180  
 cacagggaga ccctaaagga tttcctcctg taaagctctt tccccaccta ttgctactg  
 240  
 cctgaaattg ctttagcagg aaacagaatc tctcatgcca caagtgagca taaagttaa  
 300  
 aatgtaaatg ctctaggaaa aggcaactca tctcttaaat tctctccaag gttcaaatcc  
 360  
 tttccaaaga ggaggctttt gtataagtca gaaggcccag tccctgaagg tcatggaaaa  
 420  
 ggtcatgaca cacggagggg gtgtcaaagg gagactggga aactgaagat gaagctagc  
 479

<210> 1030  
 <211> 110  
 <212> PRT  
 <213> Homo sapiens

<400> 1030  
 Met Ser Cys Leu Phe Leu Glu His Leu His Phe Lys Leu Tyr Ala His  
 1 5 10 15  
 Leu Trp His Glu Arg Phe Cys Phe Leu Leu Lys Gln Phe Gln Ala Val  
 20 25 30  
 Ala Asn Arg Trp Gly Lys Ser Phe Thr Gly Gly Asn Pro Leu Gly Ser  
 35 40 45  
 Pro Cys Asp Ser Cys Thr Arg Ser Ser Gly Pro Ala Arg Asp Asn Phe  
 50 55 60  
 Pro His Leu Val Ser Asn Asn Asn Asn Asn Tyr Thr Leu Met Ser Ser  
 65 70 75 80  
 Cys Ser Ala Arg His Leu Trp Pro Val Leu Gly Arg Gln Tyr Leu Phe  
 85 90 95  
 Glu Pro Ser His Ser Ser Val Arg Thr Val Ser Leu His Ala  
 100 105 110

<210> 1031  
 <211> 322  
 <212> DNA  
 <213> Homo sapiens

<400> 1031

nacgcgtttt atgtcagcgt tgaattggaa gacggcaagt ctatcgccat gctgccccag  
 60  
 gcagatggct ggtttgaagt ggaggtgaag tgcccggcgg gcactcacta ccgtataac  
 120  
 atcgacggcg aaaccgatgt acccgacccg gcatccaggg cgcaagccaa cgatgtgcat  
 180  
 ggggtggagcg tcgtcgtcga cccgctcgcc tatcaatggc gacaccctaa ctggcaaggc  
 240  
 cgcccctggc atgaggcggg gatttacgag ctgcacgttg gcgtactggg cgggtacgcc  
 300  
 gctgttgaaac agcaactgcc gc  
 322

<210> 1032  
 <211> 107  
 <212> PRT  
 <213> Homo sapiens

<400> 1032  
 Xaa Ala Phe Tyr Val Ser Val Glu Leu Glu Asp Gly Lys Ser Ile Ala  
 1 5 10 15  
 Met Leu Pro Gln Ala Asp Gly Trp Phe Glu Val Glu Val Lys Cys Pro  
 20 25 30  
 Ala Gly Thr His Tyr Arg Tyr Asn Ile Asp Gly Glu Thr Asp Val Pro  
 35 40 45  
 Asp Pro Ala Ser Arg Ala Gln Ala Asn Asp Val His Gly Trp Ser Val  
 50 55 60  
 Val Val Asp Pro Leu Ala Tyr Gln Trp Arg His Pro Asn Trp Gln Gly  
 65 70 75 80  
 Arg Pro Trp His Glu Ala Val Ile Tyr Glu Leu His Val Gly Val Leu  
 85 90 95  
 Gly Gly Tyr Ala Ala Val Glu Gln Gln Leu Pro  
 100 105

<210> 1033  
 <211> 579  
 <212> DNA  
 <213> Homo sapiens

<400> 1033  
 tgcgtccacc ggggtgacct cctgactgcc tcagtcacga ttccttatgg tcgaagtgtc  
 60  
 acagcgccaa gggttgtgag gagggccctt cgcgggtcac ggataggtcc aagggtggcac  
 120  
 aattcacatt caaatccatc acttttcaca taattgctgt taatatgaac gtcatgagtc  
 180  
 gttgttgctc gcggttgcca gtgggactcc ccatacacgg cagcgagaca tggaggaacc  
 240  
 atgggactaa ggatcgttgt cgccgctgat ccggcggcag tcgagtacaa ggatgtcgtc  
 300  
 aaggctgacc tggaagcgga ttcgcgagtc gatgacgtta tcgacgtcgg cgttcaggct  
 360  
 ggtgacgaca ccctctaccc gcgcacggc atcaaggag ctcacgtcat caaggacgga  
 420

aaagccgac gaggaatctt tttctgcggc accgggatgg gcatggccat cacggccaac  
480  
aagggtgccag gcattcgcg ctcaccgcc cacgactcct tctccgtaga gcggctcacc  
540  
atgtccaacg acgcccacgt gctatgcctc ggccaacgc  
579

<210> 1034  
<211> 113  
<212> PRT  
<213> Homo sapiens

<400> 1034  
Met Gly Leu Arg Ile Val Val Ala Ala Asp Pro Ala Ala Val Glu Tyr  
1 5 10 15  
Lys Asp Val Val Lys Ala Asp Leu Glu Ala Asp Ser Arg Val Asp Asp  
20 25 30  
Val Ile Asp Val Gly Val Gln Ala Gly Asp Asp Thr Leu Tyr Pro Arg  
35 40 45  
Ile Gly Ile Lys Gly Ala His Val Ile Lys Asp Gly Lys Ala Asp Arg  
50 55 60  
Gly Ile Phe Phe Cys Gly Thr Gly Met Gly Met Ala Ile Thr Ala Asn  
65 70 75 80  
Lys Val Pro Gly Ile Arg Ala Cys Thr Ala His Asp Ser Phe Ser Val  
85 90 95  
Glu Arg Leu Ile Met Ser Asn Asp Ala His Val Leu Cys Leu Gly Gln  
100 105 110  
Arg

<210> 1035  
<211> 363  
<212> DNA  
<213> Homo sapiens

<400> 1035  
nacgcgtgca atgtgtgtgt gtgtatgnga ccatgtctct gtgtgtgtat gngcatatgt  
60  
gtgtgtatan gaatgtgtgt atgtgtantg gaatgtgtgt gtgtantgga agctgtgtgc  
120  
atatgtnaat gtctgtgtgc atgtacgnga atgtgcgcgt gtatggaatg tatctgtgta  
180  
tgtgtatgga ccgtttgtgt gattatgcaa tatgtccgtg tgtgcgtatg gagtgtctca  
240  
gtatggcatg tgtgtgtgta tctactgtgc gtctctgtgt gtgtantgac atgcatatgt  
300  
atagaaagcg tctgcgctgt gtgcatgtgt gtcagtatcg aacgagtcgg agatgtggta  
360  
atn  
363

<210> 1036  
<211> 121  
<212> PRT

<213> Homo sapiens

<400> 1036

```

Xaa Ala Cys Asn Val Cys Val Cys Met Xaa Pro Cys Leu Cys Val Cys
1           5           10           15
Met Xaa Ile Cys Val Cys Ile Xaa Met Cys Val Cys Val Xaa Glu Cys
20           25           30
Val Cys Val Xaa Glu Ala Val Cys Ile Cys Xaa Cys Leu Cys Ala Cys
35           40           45
Thr Xaa Met Cys Ala Cys Met Glu Cys Ile Cys Val Cys Val Trp Thr
50           55           60
Val Cys Val Ile Met Gln Tyr Val Arg Val Cys Val Trp Ser Val Ser
65           70           75           80
Val Trp His Val Cys Val Tyr Leu Leu Cys Val Ser Val Cys Val Xaa
85           90           95
Thr Cys Ile Cys Ile Glu Ser Val Cys Ala Val Cys Met Cys Val Ser
100          105          110
Ile Glu Arg Val Gly Asp Val Val Xaa
115          120

```

<210> 1037

<211> 5832

<212> DNA

<213> Homo sapiens

<400> 1037

```

ccttctcctg ggggccagat gcatgctgga atcagtagct ttcagcagag taactcaagt
60
gggacttacg gtccacagat gagccagtat ggaccacaag gtaactactc cagacccccca
120
gcgtatagtg gggtgcccag tgcaagctac agcggcccag ggcccgggtat gggatatcagt
180
gccaacaacc agatgcatgg acaagggcca agccagccat gtgggtgctgt gcccctggga
240
cgaatgccat cagctgggat gcagaacaga ccatttcctg gaaatatgag cagcatgacc
300
cccagttctc ctggcatgtc tcagcagggga gggccaggaa tggggccgcc aatgccaaact
360
gtgaaccgta aggcacagga ggcagccgca gcagtgatgc aggctgctgc gaactcagca
420
caaagcaggc aaggcagttt ccccggcatg aaccagagtg gacttatggc ttccagctct
480
ccctacagcc agcccatgaa caacagctct agcctgatga acacgcaggc gccgccctac
540
agcatggcgc ccgccatggt gaacagctcg gcagcatctg tgggtcttgc agatatgatg
600
tctcctgggtg aatccaaact gccctgcct ctcaaagcag acggcaaaga agaaggcact
660
ccacagcccg agagcaagtc aaaggatagc tacagctctc agggtatctc tcagccccc
720
accccaggca acctgccagt cccttccccca atgtccccca gctctgctag catctcctca
780
tttcatggag atgaaagtga tagcattagc agcccaggct ggccaaagac tccatcaagc
840

```

cctaagtcca gctcctccac cactactggg gagaagatca cgaaggtgta cgagctgggg  
900  
aatgagccag agagaaagct ctgggtcgac cgatacctca ccttcatgga agagagaggc  
960  
tctcctgtct caagtctgcc tgccgtgggc aagaagcccc tggacctgtt ccgactctac  
1020  
gtctgctca aagagatcgg gggtttggcc caggttaata aaaacaagaa gtggcgtgag  
1080  
ctggcaacca acctaaacgt tggcacctca agcagtgcag cgagctccct gaaaaagcag  
1140  
tatattcagt acctgtttgc ctttgagtgc aagatcgaac gtggggagga gcccccgccg  
1200  
gaagtcttca gcaccgggga caccaaaaag cagcccaagc tccagccgcc atctcctgct  
1260  
aactcgggat ccttgcaagg cccacagacc cccagtcaa ctggcagcaa ttccatggca  
1320  
gaggttccag gtgacctgaa gccacctacc ccagcctcca cccctcacgg ccagatgact  
1380  
ccaatgcaag gtggaagaag cagtacaatc agtgtgcacg acccattctc agatgtgagt  
1440  
gattcatcct tcccgaacg gaactccatg actccaaacg cccctacca gcagggcatg  
1500  
agcatgcccg atgtgatggg caggatgcc tatgagccca acaaggacct ctttggggga  
1560  
atgagaaaag tgcctggaag cagcgagccc tttatgacgc aaggacagat gcccaacagc  
1620  
agcatgcagg acatgtacaa ccaaagtccc tccggagcaa tgtctaacct gggcatgggg  
1680  
cagcgccagc agtttcccta tggagccagt tacgaccgaa ggcataacc ttatgggcag  
1740  
cagtatccag gccaaggccc tccctcggga cagccgccgt atggagggca ccagcccggc  
1800  
ctgtaccac agcagccgaa ttacaaacgc catatggacg gcatgtacgg gccccagcc  
1860  
aagcgccagc agggcgacat gtacaacatg cagtacagca gccagcagca ggagatgtac  
1920  
aaccagtatg gaggtccta ctggggcccg gaccgcaggc ccatccaggg ccagtacccg  
1980  
tatccctaca gcaggagag gatgcagggc cgggggcaga tccagacaca cggaatcccg  
2040  
cttcagatga tgggcggccc gctgcagtcg tcctccagtg aggggcctca gcagaatatg  
2100  
tgggcagcac gcaatgatat gccttatccc taccagaaca ggcagggccc tggcggccct  
2160  
acacaggcgc ccccttacc aggcatgaac cgcacagacg atatgatggg acccgatcag  
2220  
aggataaatc atgagagcca gtggccttct cacgtcagcc agcgtcagcc ttatatgtcg  
2280  
tcctcagcct ccatgcagcc catcacacgc ccaccacagc cgtcctacca gacgccaccg  
2340  
tcaactgcaa atcacatctc cagggcgccc agcccagcgt ccttccagcg ctccctggag  
2400  
aaccgcatgt ctccaagcaa gtctcctttt ctgccgtcta tgaagatgca gaaggtcatg  
2460



cccacgggcc ccacatccca ggccaccggg ccaccacccc aaccaccccc aatcagaagg  
2520  
gagatcacct ttcctcctgg ctccagtagaa gcaccacaac cagtccttgaa acaaaggcga  
2580  
aagattacct ccaaagatat cgttactcct gaggcgtggc gtgtgatgat gtcccttaaa  
2640  
tcaggctctt tggctgagag tacgtgggct ttggacacta ttaatatctt tctgtatgat  
2700  
gacagcactg ttgctacttt caatctctcc cagttgtctg gatttctcga acttttagtc  
2760  
gagtacttta gaaaatgcct gattgacatt tttggaattc ttatggaata tgaagtggga  
2820  
gacccacgcc aaaaagcact tgatcacaac gcagcaagga aggatgacag ccagtccttg  
2880  
gcagacgatt ctgggaaaga ggaggaagat gctgaatgta ttgatgacga cgaggaagac  
2940  
gaggaggatg aggaggaaga cagcgagaag acagaaagcg atgaaaagag cagcatcgct  
3000  
ctgactgccc cggacgccgc tgcagacca aaggagaagc ccaagcaagc cagtaagttc  
3060  
gacaagctgc caataaagat agtcaaaaag aacaacctgt ttgttggtga ccgatctgac  
3120  
aagttggggc gtgtgcagga gttcaatagt ggccttctac actggcagct cggcgggggt  
3180  
gacaccaccg agcacattca gactcacttt gagagcaaga tggaaattcc tcctcgcagg  
3240  
cgccacctc ccccttaag ctccgcaggc aagaagaaag agctggcagg caaaggcgac  
3300  
tctgaagagc agcaagagaa aagcatcata gcaaccattg atgacgtcct gtctgctcgg  
3360  
ccaggggcat tgccggaaga cgcaaacctt gggccccaga ccgaaagcag taagtctccc  
3420  
tttggtatcc agcaagccaa aagtcaccgg aacatcaagc tgctggagga cgagcccagg  
3480  
agccgagacg agactcccct gtgtaccatc gcgcactggc aggactcgct ggctaagcga  
3540  
tgcactctgt tgtccaatat tgtccgtagc ttgtcattcg tgcctggcaa tgatgccgaa  
3600  
atgtccaaac atccaggcct ggtgctgac ctggggaagc tgattcttct tcaccacgag  
3660  
catccagaga gaaagcgagc accgcagacc tatgagaaag aggaggatga ggacaagggg  
3720  
gtggcctgca gcaaagatga gtgggtgggg gactgcctcg aggtcttgag ggataacacg  
3780  
ttggtcacgt tggccaacat ttccgggcag ctagacttgt ctgcttacac ggaaagcatc  
3840  
tgcttgccaa ttttggtatg cttgctgcac tggatgggtg gcccgctcgc agaggcacia  
3900  
gaccccttcc caactgtggg acccaactcg gtcccgctgc ctccagagact tgtgctggag  
3960  
accctctgta aactcagtat ccaggacaat aatgtggacc tgatcttggc cactcctcca  
4020  
tttagtcgtc aggagaaatt ctatgctaca ttagttaggt acgttgggga tcgcaaaaac  
4080

ccagtctgtc gagaaatgtc catggcgctt ttatcgaacc ttgcccagg ggaacgacta  
4140  
gcagcaaggg ccatagctgt gcagaaagga agcattggaa acttgataag cttcctagag  
4200  
gatggggtca cgatggccca gtaccagcag agccagcaca acctcatgca catgcagccc  
4260  
ccgcccctgg aaccacctag cgtagacatg atgtgcaggg cggccaaggc tttgctagcc  
4320  
atggccagag tggacgaaaa ccgctcggaa ttccttttgc acgagggccg gttgctggat  
4380  
atctcgatat cagctgtcct gaactctctg gttgcctctg tcatctgtga tgtactgttt  
4440  
cagattgggc agttatgaca taagtgagaa ggcaagcatg tgtgagtga gattagaggg  
4500  
tcacatataa ctggctgttt tctgttcttg tttatccagc gtaggaagaa ggaaaagaaa  
4560  
atctttgtc ctctgcccc a ttcactattt accaattggg aattaaagaa ataattaatt  
4620  
tgaacagtta tgaaattaat atttgctgtc tgtgtgtata agtacatcct ttgggggttt  
4680  
ttttttctct tttttttaac caaagttgct gtctagtga ttc aaaggct actttttgtt  
4740  
cttcacagat ctttttaatg ttttttccca tgttgtattg catttttggg ggaagcaaat  
4800  
tgactttaaa gaaaaaagtt gtggcaaaag atgctaagat gcgaaaattt caccacactg  
4860  
agtcaaaaag gtgaaaaatt atccatttcc tatgcgtttt actcctcaga gaatgaaaaa  
4920  
aactgcatcc catcacccaa agttctgtgc aatagaaatt tctacagata caggtatagg  
4980  
ggctcaagga ggtatgtcgg tcagtagtca aaactatgaa atgatactgg tttctccaca  
5040  
ggaatatggg tccattaggc tgggagcaaa aacaatgttt ttttaagattg agaatacata  
5100  
cctgacaacg atccggaaac tgctcctcac cactcccgct atgcctgctg tcggcgtttg  
5160  
accttccacg tgacagttct tcacaattcc tttcatcatt ttttaaata tttttttact  
5220  
gcctatgggc tgtgatgtat atagaagttg tacattaaac ataccctcat ttttttcttt  
5280  
tttttttttt ttttttttag taaaaagttt tagtttcttt ttcattgatgt ggtaactacg  
5340  
aagtgatggg agatttaaatt aattttttat ttttatttta tatatttttt cattagggcc  
5400  
atatctccaa aaaaagaaag aaaaaataca aaaaacaaaa acaaaaaaaaa aagagggtaa  
5460  
tgtacaagtt tctgtatgta taaagtcatg ctcgatttca ggagagcagc tgatcacaat  
5520  
ttgcttcatg aatcaaggtg tggaaatggg tatatatgga ttgatttaga aaatgggttac  
5580  
cagtacagtc aaaaaagaga aaatgaaaaa aatacaacta aaaggaagaa acacaacttc  
5640  
aaagattttt cagtgatgag aatccacatt tgtatttcaa gataatgtag tttaaaaaaa  
5700

aaaaaaagaa aaaaacttga tgtaaattcc tccttttctt ctggcttaat gaatatcatt  
5760  
tattcagtat aaaatcttta tatgttccac atgttaagaa taaatgtaca ttaaattcttg  
5820  
ttaagcactg tg  
5832

<210> 1038  
<211> 1485  
<212> PRT  
<213> Homo sapiens

<400> 1038  
Pro Ser Pro Gly Gly Gln Met His Ala Gly Ile Ser Ser Phe Gln Gln  
1 5 10 15  
Ser Asn Ser Ser Gly Thr Tyr Gly Pro Gln Met Ser Gln Tyr Gly Pro  
20 25 30  
Gln Gly Asn Tyr Ser Arg Pro Pro Ala Tyr Ser Gly Val Pro Ser Ala  
35 40 45  
Ser Tyr Ser Gly Pro Gly Pro Gly Met Gly Ile Ser Ala Asn Asn Gln  
50 55 60  
Met His Gly Gln Gly Pro Ser Gln Pro Cys Gly Ala Val Pro Leu Gly  
65 70 75 80  
Arg Met Pro Ser Ala Gly Met Gln Asn Arg Pro Phe Pro Gly Asn Met  
85 90 95  
Ser Ser Met Thr Pro Ser Ser Pro Gly Met Ser Gln Gln Gly Gly Pro  
100 105 110  
Gly Met Gly Pro Pro Met Pro Thr Val Asn Arg Lys Ala Gln Glu Ala  
115 120 125  
Ala Ala Ala Val Met Gln Ala Ala Ala Asn Ser Ala Gln Ser Arg Gln  
130 135 140  
Gly Ser Phe Pro Gly Met Asn Gln Ser Gly Leu Met Ala Ser Ser Ser  
145 150 155 160  
Pro Tyr Ser Gln Pro Met Asn Asn Ser Ser Ser Leu Met Asn Thr Gln  
165 170 175  
Ala Pro Pro Tyr Ser Met Ala Pro Ala Met Val Asn Ser Ser Ala Ala  
180 185 190  
Ser Val Gly Leu Ala Asp Met Met Ser Pro Gly Glu Ser Lys Leu Pro  
195 200 205  
Leu Pro Leu Lys Ala Asp Gly Lys Glu Glu Gly Thr Pro Gln Pro Glu  
210 215 220  
Ser Lys Ser Lys Asp Ser Tyr Ser Ser Gln Gly Ile Ser Gln Pro Pro  
225 230 235 240  
Thr Pro Gly Asn Leu Pro Val Pro Ser Pro Met Ser Pro Ser Ser Ala  
245 250 255  
Ser Ile Ser Ser Phe His Gly Asp Glu Ser Asp Ser Ile Ser Ser Pro  
260 265 270  
Gly Trp Pro Lys Thr Pro Ser Ser Pro Lys Ser Ser Ser Ser Thr Thr  
275 280 285  
Thr Gly Glu Lys Ile Thr Lys Val Tyr Glu Leu Gly Asn Glu Pro Glu  
290 295 300  
Arg Lys Leu Trp Val Asp Arg Tyr Leu Thr Phe Met Glu Glu Arg Gly  
305 310 315 320  
Ser Pro Val Ser Ser Leu Pro Ala Val Gly Lys Lys Pro Leu Asp Leu

```

          325          330          335
Phe Arg Leu Tyr Val Cys Val Lys Glu Ile Gly Gly Leu Ala Gln Val
          340          345          350
Asn Lys Asn Lys Lys Trp Arg Glu Leu Ala Thr Asn Leu Asn Val Gly
          355          360          365
Thr Ser Ser Ser Ala Ala Ser Ser Leu Lys Lys Gln Tyr Ile Gln Tyr
          370          375          380
Leu Phe Ala Phe Glu Cys Lys Ile Glu Arg Gly Glu Glu Pro Pro Pro
385          390          395          400
Glu Val Phe Ser Thr Gly Asp Thr Lys Lys Gln Pro Lys Leu Gln Pro
          405          410          415
Pro Ser Pro Ala Asn Ser Gly Ser Leu Gln Gly Pro Gln Thr Pro Gln
          420          425          430
Ser Thr Gly Ser Asn Ser Met Ala Glu Val Pro Gly Asp Leu Lys Pro
          435          440          445
Pro Thr Pro Ala Ser Thr Pro His Gly Gln Met Thr Pro Met Gln Gly
          450          455          460
Gly Arg Ser Ser Thr Ile Ser Val His Asp Pro Phe Ser Asp Val Ser
465          470          475          480
Asp Ser Ser Phe Pro Lys Arg Asn Ser Met Thr Pro Asn Ala Pro Tyr
          485          490          495
Gln Gln Gly Met Ser Met Pro Asp Val Met Gly Arg Met Pro Tyr Glu
          500          505          510
Pro Asn Lys Asp Pro Phe Gly Gly Met Arg Lys Val Pro Gly Ser Ser
          515          520          525
Glu Pro Phe Met Thr Gln Gly Gln Met Pro Asn Ser Ser Met Gln Asp
          530          535          540
Met Tyr Asn Gln Ser Pro Ser Gly Ala Met Ser Asn Leu Gly Met Gly
545          550          555          560
Gln Arg Gln Gln Phe Pro Tyr Gly Ala Ser Tyr Asp Arg Arg His Glu
          565          570          575
Pro Tyr Gly Gln Gln Tyr Pro Gly Gln Gly Pro Pro Ser Gly Gln Pro
          580          585          590
Pro Tyr Gly Gly His Gln Pro Gly Leu Tyr Pro Gln Gln Pro Asn Tyr
          595          600          605
Lys Arg His Met Asp Gly Met Tyr Gly Pro Pro Ala Lys Arg His Glu
          610          615          620
Gly Asp Met Tyr Asn Met Gln Tyr Ser Ser Gln Gln Gln Glu Met Tyr
625          630          635          640
Asn Gln Tyr Gly Gly Ser Tyr Ser Gly Pro Asp Arg Arg Pro Ile Gln
          645          650          655
Gly Gln Tyr Pro Tyr Pro Tyr Ser Arg Glu Arg Met Gln Gly Pro Gly
          660          665          670
Gln Ile Gln Thr His Gly Ile Pro Leu Gln Met Met Gly Gly Pro Leu
          675          680          685
Gln Ser Ser Ser Ser Glu Gly Pro Gln Gln Asn Met Trp Ala Ala Arg
          690          695          700
Asn Asp Met Pro Tyr Pro Tyr Gln Asn Arg Gln Gly Pro Gly Gly Pro
705          710          715          720
Thr Gln Ala Pro Pro Tyr Pro Gly Met Asn Arg Thr Asp Asp Met Met
          725          730          735
Val Pro Asp Gln Arg Ile Asn His Glu Ser Gln Trp Pro Ser His Val
          740          745          750
Ser Gln Arg Gln Pro Tyr Met Ser Ser Ser Ala Ser Met Gln Pro Ile

```

755 760 765  
 Thr Arg Pro Pro Gln Pro Ser Tyr Gln Thr Pro Pro Ser Leu Pro Asn  
 770 775 780  
 His Ile Ser Arg Ala Pro Ser Pro Ala Ser Phe Gln Arg Ser Leu Glu  
 785 790 795 800  
 Asn Arg Met Ser Pro Ser Lys Ser Pro Phe Leu Pro Ser Met Lys Met  
 805 810 815  
 Gln Lys Val Met Pro Thr Val Pro Thr Ser Gln Val Thr Gly Pro Pro  
 820 825 830  
 Pro Gln Pro Pro Pro Ile Arg Arg Glu Ile Thr Phe Pro Pro Gly Ser  
 835 840 845  
 Val Glu Ala Ser Gln Pro Val Leu Lys Gln Arg Arg Lys Ile Thr Ser  
 850 855 860  
 Lys Asp Ile Val Thr Pro Glu Ala Trp Arg Val Met Met Ser Leu Lys  
 865 870 875 880  
 Ser Gly Leu Leu Ala Glu Ser Thr Trp Ala Leu Asp Thr Ile Asn Ile  
 885 890 895  
 Leu Leu Tyr Asp Asp Ser Thr Val Ala Thr Phe Asn Leu Ser Gln Leu  
 900 905 910  
 Ser Gly Phe Leu Glu Leu Leu Val Glu Tyr Phe Arg Lys Cys Leu Ile  
 915 920 925  
 Asp Ile Phe Gly Ile Leu Met Glu Tyr Glu Val Gly Asp Pro Ser Gln  
 930 935 940  
 Lys Ala Leu Asp His Asn Ala Ala Arg Lys Asp Asp Ser Gln Ser Leu  
 945 950 955 960  
 Ala Asp Asp Ser Gly Lys Glu Glu Glu Asp Ala Glu Cys Ile Asp Asp  
 965 970 975  
 Asp Glu Glu Asp Glu Glu Asp Glu Glu Glu Asp Ser Glu Lys Thr Glu  
 980 985 990  
 Ser Asp Glu Lys Ser Ser Ile Ala Leu Thr Ala Pro Asp Ala Ala Ala  
 995 1000 1005  
 Asp Pro Lys Glu Lys Pro Lys Gln Ala Ser Lys Phe Asp Lys Leu Pro  
 1010 1015 1020  
 Ile Lys Ile Val Lys Lys Asn Asn Leu Phe Val Val Asp Arg Ser Asp  
 1025 1030 1035 1040  
 Lys Leu Gly Arg Val Gln Glu Phe Asn Ser Gly Leu Leu His Trp Gln  
 1045 1050 1055  
 Leu Gly Gly Gly Asp Thr Thr Glu His Ile Gln Thr His Phe Glu Ser  
 1060 1065 1070  
 Lys Met Glu Ile Pro Pro Arg Arg Arg Pro Pro Pro Pro Leu Ser Ser  
 1075 1080 1085  
 Ala Gly Lys Lys Lys Glu Leu Ala Gly Lys Gly Asp Ser Glu Glu Gln  
 1090 1095 1100  
 Gln Glu Lys Ser Ile Ile Ala Thr Ile Asp Asp Val Leu Ser Ala Arg  
 1105 1110 1115 1120  
 Pro Gly Ala Leu Pro Glu Asp Ala Asn Pro Gly Pro Gln Thr Glu Ser  
 1125 1130 1135  
 Ser Lys Phe Pro Phe Gly Ile Gln Gln Ala Lys Ser His Arg Asn Ile  
 1140 1145 1150  
 Lys Leu Leu Glu Asp Glu Pro Arg Ser Arg Asp Glu Thr Pro Leu Cys  
 1155 1160 1165  
 Thr Ile Ala His Trp Gln Asp Ser Leu Ala Lys Arg Cys Ile Cys Val  
 1170 1175 1180  
 Ser Asn Ile Val Arg Ser Leu Ser Phe Val Pro Gly Asn Asp Ala Glu

```

1185          1190          1195          1200
Met Ser Lys His Pro Gly Leu Val Leu Ile Leu Gly Lys Leu Ile Leu
          1205          1210          1215
Leu His His Glu His Pro Glu Arg Lys Arg Ala Pro Gln Thr Tyr Glu
          1220          1225          1230
Lys Glu Glu Asp Glu Asp Lys Gly Val Ala Cys Ser Lys Asp Glu Trp
          1235          1240          1245
Trp Trp Asp Cys Leu Glu Val Leu Arg Asp Asn Thr Leu Val Thr Leu
          1250          1255          1260
Ala Asn Ile Ser Gly Gln Leu Asp Leu Ser Ala Tyr Thr Glu Ser Ile
1265          1270          1275          1280
Cys Leu Pro Ile Leu Asp Gly Leu Leu His Trp Met Val Cys Pro Ser
          1285          1290          1295
Ala Glu Ala Gln Asp Pro Phe Pro Thr Val Gly Pro Asn Ser Val Pro
          1300          1305          1310
Ser Pro Gln Arg Leu Val Leu Glu Thr Leu Cys Lys Leu Ser Ile Gln
          1315          1320          1325
Asp Asn Asn Val Asp Leu Ile Leu Ala Thr Pro Pro Phe Ser Arg Gln
          1330          1335          1340
Glu Lys Phe Tyr Ala Thr Leu Val Arg Tyr Val Gly Asp Arg Lys Asn
1345          1350          1355          1360
Pro Val Cys Arg Glu Met Ser Met Ala Leu Leu Ser Asn Leu Ala Gln
          1365          1370          1375
Gly Asp Ala Leu Ala Ala Arg Ala Ile Ala Val Gln Lys Gly Ser Ile
          1380          1385          1390
Gly Asn Leu Ile Ser Phe Leu Glu Asp Gly Val Thr Met Ala Gln Tyr
          1395          1400          1405
Gln Gln Ser Gln His Asn Leu Met His Met Gln Pro Pro Pro Leu Glu
          1410          1415          1420
Pro Pro Ser Val Asp Met Met Cys Arg Ala Ala Lys Ala Leu Leu Ala
1425          1430          1435          1440
Met Ala Arg Val Asp Glu Asn Arg Ser Glu Phe Leu Leu His Glu Gly
          1445          1450          1455
Arg Leu Leu Asp Ile Ser Ile Ser Ala Val Leu Asn Ser Leu Val Ala
          1460          1465          1470
Ser Val Ile Cys Asp Val Leu Phe Gln Ile Gly Gln Leu
          1475          1480          1485

```

&lt;210&gt; 1039

&lt;211&gt; 379

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1039

gcaggagcca gggatgctgc tgaacatccc gcagtgcacg agacaggcct ccaccacacg  
60

gaattacctt ggcctgaggt gttacgagag cacagagaga aaccaggtac agacgcgggg  
120

cagaggggag agagggagag agtgtgagag ctaagggtttc gggagaagac tttgtggaaa  
180

aagtcttttg ctgggtcctg caacatagcc aggattcagt gacaggtgag gaccactcca  
240

gattttgtat gtattgaagg ccctgaatac ttttttgaaa gagaatgaca tgagtacacc  
300

tggtcagcca cacgtgagag gggttggagg agggaagtac cagaggcagg gagaccaggt  
 360  
 agaaagacct cgccatagt  
 379

<210> 1040  
 <211> 125  
 <212> PRT  
 <213> Homo sapiens

<400> 1040  
 Met Ala Arg Ser Phe Tyr Leu Val Ser Leu Pro Leu Val Leu Pro Ser  
 1 5 10 15  
 Ser Asn Pro Ser His Val Trp Leu Thr Arg Cys Thr His Val Ile Leu  
 20 25 30  
 Phe Gln Lys Ser Ile Gln Gly Leu Gln Tyr Ile Gln Asn Leu Glu Trp  
 35 40 45  
 Ser Ser Pro Val Thr Glu Ser Trp Leu Cys Cys Arg Thr Gln Pro Lys  
 50 55 60  
 Thr Phe Ser Thr Lys Ser Ser Pro Glu Thr Leu Ala Leu Thr Leu Ser  
 65 70 75 80  
 Pro Ser Leu Pro Ser Ala Pro Arg Leu Tyr Leu Val Ser Leu Cys Ala  
 85 90 95  
 Leu Val Thr Pro Gln Ala Lys Val Ile Pro Cys Gly Gly Gly Leu Ser  
 100 105 110  
 Arg Ala Leu Arg Asp Val Gln Gln His Pro Trp Leu Leu  
 115 120 125

<210> 1041  
 <211> 388  
 <212> DNA  
 <213> Homo sapiens

<400> 1041  
 ttagtgggccg tggaggccat cggctacatc gcgagtattg acaaggccga tatgtcaatc  
 60  
 gaaacggcgt acctgcccgc gctgttggtt tccttgggcc tgaccatccc ggtgctcgcc  
 120  
 ttgtcgatga tcccggccct gcacttcccgc cattggccgt tgtgggcggt ggcgcttacc  
 180  
 accccgggtg tgttctgggg tgectggccg ctgcaccacg ccgcgtggac caacctgcgg  
 240  
 cacggcgcgg ccatcatgga caccctggtg tcgctcggcg tcctcacttc gtacctctgg  
 300  
 tcggtatgga tgctgaccac aggcggcgag cacctctacc tggaggtagc cgtccaccgt  
 360  
 cacgacgctg atcctggccg gcaaattt  
 388

<210> 1042  
 <211> 129  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 1042

Leu Val Ala Val Glu Ala Ile Gly Tyr Ile Ala Ser Ile Asp Lys Ala  
 1 5 10 15  
 Asp Met Ser Ile Glu Thr Ala Tyr Leu Pro Arg Leu Leu Val Ser Leu  
 20 25 30  
 Ala Leu Thr Ile Pro Val Leu Ala Leu Ser Met Ile Pro Ala Leu His  
 35 40 45  
 Phe Pro His Trp Pro Leu Trp Ala Leu Ala Leu Thr Thr Pro Val Val  
 50 55 60  
 Phe Trp Gly Ala Trp Pro Leu His His Ala Ala Trp Thr Asn Leu Arg  
 65 70 75 80  
 His Gly Ala Ala Ile Met Asp Thr Leu Val Ser Leu Gly Val Leu Thr  
 85 90 95  
 Ser Tyr Leu Trp Ser Val Trp Met Leu Thr Thr Gly Gly Glu His Leu  
 100 105 110  
 Tyr Leu Glu Val Ala Val His Arg His Asp Ala Asp Pro Gly Arg Gln  
 115 120 125  
 Ile

&lt;210&gt; 1043

&lt;211&gt; 555

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1043

accggtgaaa ccctgatcgg ccaatcgttt tccaccgttc ccggcggcaa gggcgcaaac  
 60  
 caggcggtcg cttcggcgcg tcttggggcc gaagtcgcga tggtcggttg cgtgggtacc  
 120  
 gatgcctacg gcgcgcaatt acgcgacgca ttgttggttg aaggcatcga ttgccaggcc  
 180  
 gtcagcaccg tcgacgggtc cagcgggtgtg gcgctgatcg tggtaggatga cagcagccag  
 240  
 aatgcgatcg ttatcgtcgc cggtagcaat ggcgagctga ctccggccaa gttacagacc  
 300  
 tttgacagcg tgctgcaggc tgccgacgtg attgtctgcc agcttgagac gccgatggac  
 360  
 actgtcggcc atgcgcctaa gcgcgggtcg gaactgggca agacgggtgat cctcaatccg  
 420  
 gcgcgggcca gcggcccgtt gcctgaggat tggtagcccg ccacgatta cctgattccc  
 480  
 aacgaaagcg aagcctcggc cttgagtggc gtggtggttg attcactgga cagcgccaag  
 540  
 gtcgctgcta cgcgt  
 555

&lt;210&gt; 1044

&lt;211&gt; 185

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1044

Thr Gly Glu Thr Leu Ile Gly Gln Ser Phe Ser Thr Val Pro Gly Gly



```

      1           5           10           15
Lys Gly Ala Asn Gln Ala Val Ala Ser Ala Arg Leu Gly Ala Glu Val
      20           25           30
Ala Met Val Gly Cys Val Gly Thr Asp Ala Tyr Gly Ala Gln Leu Arg
      35           40           45
Asp Ala Leu Leu Val Glu Gly Ile Asp Cys Gln Ala Val Ser Thr Val
      50           55           60
Asp Gly Ser Ser Gly Val Ala Leu Ile Val Val Asp Asp Ser Ser Gln
      65           70           75           80
Asn Ala Ile Val Ile Val Ala Gly Ser Asn Gly Glu Leu Thr Pro Ala
      85           90           95
Lys Leu Gln Thr Phe Asp Ser Val Leu Gln Ala Ala Asp Val Ile Val
      100           105           110
Cys Gln Leu Glu Thr Pro Met Asp Thr Val Gly His Ala Pro Lys Arg
      115           120           125
Gly Arg Glu Leu Gly Lys Thr Val Ile Leu Asn Pro Ala Pro Ala Ser
      130           135           140
Gly Pro Leu Pro Glu Asp Trp Tyr Ala Ala Ile Asp Tyr Leu Ile Pro
      145           150           155           160
Asn Glu Ser Glu Ala Ser Ala Leu Ser Gly Val Val Val Asp Ser Leu
      165           170           175
Asp Ser Ala Lys Val Ala Ala Thr Arg
      180           185

```

<210> 1045  
 <211> 371  
 <212> DNA  
 <213> Homo sapiens

```

<400> 1045
ctattgccat actaccgccg cggcaacctt caggacatga tcaacgccaa cctcttcaat
60
cactccaaat tccccgagac gcaccttatg aatctatttc tcggcgctctg caaggccctg
120
cgcgccatgc acgattacca cgcaccgccg gcagagcgca tgccaattgg gcaccgaagg
180
cagaccacca cccaggtgca aagcaacagt ggtagagcgg tcgctcatcg acgaaacgta
240
cggaagaaga cgaagagacg gagcaggaaa gacctgttat ggaatcacag aaccacatcg
300
ggcagggcgg cgagcacaaa accatatgcg catcgcgaca ttaaaccagg tacgtgctgc
360
aagctcctcg g
371

```

<210> 1046  
 <211> 123  
 <212> PRT  
 <213> Homo sapiens

```

<400> 1046
Leu Leu Pro Tyr Tyr Arg Arg Gly Asn Leu Gln Asp Met Ile Asn Ala
      1           5           10           15
Asn Leu Phe Asn His Ser Lys Phe Pro Glu Thr His Leu Met Asn Leu

```

		20						25					30				
Phe	Leu	Gly	Val	Cys	Lys	Ala	Leu	Arg	Ala	Met	His	Asp	Tyr	His	Ala		
		35						40				45					
Pro	Pro	Ala	Glu	Arg	Met	Pro	Ile	Gly	His	Arg	Arg	Gln	Thr	Thr	Thr		
	50					55				60							
Gln	Val	Gln	Ser	Asn	Ser	Gly	Arg	Ala	Val	Ala	His	Arg	Arg	Asn	Val		
65				70				75						80			
Arg	Lys	Lys	Thr	Lys	Arg	Arg	Ser	Arg	Lys	Asp	Leu	Leu	Trp	Asn	His		
			85					90					95				
Arg	Thr	Thr	Ser	Gly	Arg	Ala	Ala	Ser	Thr	Lys	Pro	Tyr	Ala	His	Arg		
		100						105					110				
Asp	Ile	Lys	Pro	Gly	Thr	Cys	Cys	Lys	Leu	Leu							
		115					120										

&lt;210&gt; 1047

&lt;211&gt; 754

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 1047

natgcccaga aggacctgga cgaggcgttg ccagccctgg atgcggctct ggccagccta  
 60  
 cgcaacctca acaagaacga agtgacccag gtacgtgcca tgcagcggcc acccccgggt  
 120  
 gtgaaactgg tcatagaagc tgtgtgcatt atgaaaggca tcaagcccaa gaaggtgcct  
 180  
 ggagaaaagc caggcaccaa ggtggatgac tactgggagc ctggcaaggg gctgctgcag  
 240  
 gaccggggcc acttccttga gagcctcttc aagtttgaca aggacaacat tggagatgtg  
 300  
 gtgatcaaag ccatccagcc gtacatcgat aatgaagagt tccagccagc caccattgcc  
 360  
 aaggtgtcca agggttgccc cttcatttgg ccgtgggggg gggcaatgcc caagtacccc  
 420  
 tttgtggcca aggccgtgga gcccaagcgg caagccctgc tggaggccca ggatgacctg  
 480  
 ggggtgacac agaggatcct ggatgaggca aaacagcgcc ttcgtgaggt ggaggacggc  
 540  
 atcgccacaa tgcaggctaa gtaccgggaa tgcattacca agaaggagga gctggagctg  
 600  
 aagtgtgagc agtgtgagca gcggctgggc cacgctggca aggtgcgcac cctcctcctg  
 660  
 caaggcctgc aagcggggccc ggcccagaca ggggccagaa aggaccaggg cgccgggtggg  
 720  
 tcctgggggtg gctgtccaac cccctccctg gcaa  
 754

&lt;210&gt; 1048

&lt;211&gt; 251

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 1048

Xaa Ala Gln Lys Asp Leu Asp Glu Ala Leu Pro Ala Leu Asp Ala Ala

1	5	10	15												
Leu	Ala	Ser	Leu	Arg	Asn	Leu	Asn	Lys	Asn	Glu	Val	Thr	Gln	Val	Arg
			20					25						30	
Ala	Met	Gln	Arg	Pro	Pro	Pro	Gly	Val	Lys	Leu	Val	Ile	Glu	Ala	Val
		35					40						45		
Cys	Ile	Met	Lys	Gly	Ile	Lys	Pro	Lys	Lys	Val	Pro	Gly	Glu	Lys	Pro
	50					55					60				
Gly	Thr	Lys	Val	Asp	Asp	Tyr	Trp	Glu	Pro	Gly	Lys	Gly	Leu	Leu	Gln
65					70					75				80	
Asp	Pro	Gly	His	Phe	Leu	Glu	Ser	Leu	Phe	Lys	Phe	Asp	Lys	Asp	Asn
			85						90					95	
Ile	Gly	Asp	Val	Val	Ile	Lys	Ala	Ile	Gln	Pro	Tyr	Ile	Asp	Asn	Glu
		100						105					110		
Glu	Phe	Gln	Pro	Ala	Thr	Ile	Ala	Lys	Val	Ser	Lys	Gly	Cys	Pro	Phe
		115					120					125			
Ile	Trp	Pro	Trp	Gly	Gly	Ala	Met	Pro	Lys	Tyr	Pro	Phe	Val	Ala	Lys
	130					135					140				
Ala	Val	Glu	Pro	Lys	Arg	Gln	Ala	Leu	Leu	Glu	Ala	Gln	Asp	Asp	Leu
145					150					155					160
Gly	Val	Thr	Gln	Arg	Ile	Leu	Asp	Glu	Ala	Lys	Gln	Arg	Leu	Arg	Glu
			165					170					175		
Val	Glu	Asp	Gly	Ile	Ala	Thr	Met	Gln	Ala	Lys	Tyr	Arg	Glu	Cys	Ile
		180						185					190		
Thr	Lys	Lys	Glu	Glu	Leu	Glu	Leu	Lys	Cys	Glu	Gln	Cys	Glu	Gln	Arg
		195					200						205		
Leu	Gly	His	Ala	Gly	Lys	Val	Arg	Thr	Leu	Leu	Leu	Gln	Gly	Leu	Gln
	210					215					220				
Ala	Gly	Pro	Ala	Gln	Thr	Gly	Ala	Arg	Lys	Asp	Gln	Gly	Ala	Gly	Gly
225					230					235				240	
Ser	Trp	Gly	Gly	Cys	Pro	Thr	Pro	Ser	Leu	Ala					
			245						250						

<210> 1049  
 <211> 558  
 <212> DNA  
 <213> Homo sapiens

<400> 1049  
 cgcagcaata gctgcacttg accagactgg gctttgcaat aagcgcatte cccgggctga  
 60  
 atgctgcaga tccttacagg ctgactgcag ggtgtttcag attctcctgg agtcacacgt  
 120  
 gccagcttga tttcaagaaa caactagaat aacagttttc tgataagaag tctatagcac  
 180  
 tttatggctt acataatcca gagatagatg ggctgggcat gattcccatt ttctgttggg  
 240  
 gaaaccgact cacagagaag ttaagggaca agtataaagt gatgaaactg tgtactgaac  
 300  
 ctcattgtct ccagactccc ggggtccccgg gctttttctc ggggaggccc cattcacatt  
 360  
 gcaattcatg gccggggcaa atgctcacc acagagatat taagcactcc aacactccat  
 420  
 ccaccagggt gcagccaaag gattcagaag acaatgatca ttccatcagc atgcactatg  
 480

cagctaaaga aaggttttgg catgctctgc tttattgttt cacagaagat aagaaaataa  
540  
actgcaaagt aacttaag  
558

<210> 1050  
<211> 112  
<212> PRT  
<213> Homo sapiens

<400> 1050  
Met Ile Pro Ile Phe Cys Trp Gly Asn Arg Leu Thr Glu Lys Leu Arg  
1 5 10 15  
Asp Lys Tyr Lys Val Met Lys Leu Cys Thr Glu Pro His Val Ser Gln  
20 25 30  
Thr Pro Gly Ser Pro Gly Phe Phe Ser Gly Arg Pro His Ser His Cys  
35 40 45  
Asn Ser Trp Pro Gly Gln Met Leu Thr His Arg Asp Ile Lys His Ser  
50 55 60  
Asn Thr Pro Ser Thr Arg Leu Gln Pro Lys Asp Ser Glu Asp Asn Asp  
65 70 75 80  
His Ser Ile Ser Met His Tyr Ala Ala Lys Glu Arg Phe Trp His Ala  
85 90 95  
Leu Leu Tyr Cys Phe Thr Glu Asp Lys Lys Ile Asn Cys Lys Val Thr  
100 105 110

<210> 1051  
<211> 317  
<212> DNA  
<213> Homo sapiens

<400> 1051  
gcgttgagtc gggatgtcgc attcatgccc ggcgaacctt tttttgccga accggagcgt  
60  
aatccgggta atcttcgtct caatttcagt cacatcgcac cggagcgtct ggacgaaggt  
120  
ctcaagcgcc tggctgctgt catccgtcac gcacaggctg cacaagcggc ttaaggggag  
180  
ggccatgtac aaggtttatg gcgattacca gtcgggcaat tgctacaaga tcaagctgat  
240  
gctgcacctg ctggggcagg aatatcgctg gcacccgggg gacatcctca aggtgacacc  
300  
gagaccccg aattttt  
317

<210> 1052  
<211> 57  
<212> PRT  
<213> Homo sapiens

<400> 1052  
Ala Leu Ser Arg Asp Val Ala Phe Met Pro Gly Glu Pro Phe Phe Ala  
1 5 10 15  
Glu Pro Glu Arg Asn Pro Gly Asn Leu Arg Leu Asn Phe Ser His Ile

20 25 30  
 Ala Pro Glu Arg Leu Asp Glu Gly Leu Lys Arg Leu Ala Ala Val Ile  
 35 40 45  
 Arg His Ala Gln Ala Ala Gln Ala Ala  
 50 55

<210> 1053  
 <211> 318  
 <212> DNA  
 <213> Homo sapiens

<400> 1053  
 caattggcta cgcgatccga acgggcgcat gggctctctat gactggcaag ccgtcgctcg  
 60  
 cggggagtgg gccctcgact atgcctacgc gatgtcgggtg aacctgacca ccgagaaccg  
 120  
 gcgtgcctgg gaacgcgacc tgctcgagcg ttatctgtgg cgcctcgccg aagaggggtgt  
 180  
 cgccaacccg cctcgtttcg agcaagcgtg gctacgctac cggcaacagc cgttccacgt  
 240  
 cgggatcttc tcactcttga ccatcggcgc cggacgcttt caaccggcca tgcaaccggc  
 300  
 ggactcnnnn ccccnenc  
 318

<210> 1054  
 <211> 96  
 <212> PRT  
 <213> Homo sapiens

<400> 1054  
 Met Gly Leu Tyr Asp Trp Gln Ala Val Ala Arg Gly Glu Trp Ala Leu  
 1 5 10 15  
 Asp Tyr Ala Tyr Ala Met Ser Val Asn Leu Thr Thr Glu Asn Arg Arg  
 20 25 30  
 Ala Trp Glu Arg Asp Leu Leu Glu Arg Tyr Leu Trp Arg Leu Ala Glu  
 35 40 45  
 Glu Gly Val Ala Asn Pro Pro Ser Phe Glu Gln Ala Trp Leu Arg Tyr  
 50 55 60  
 Arg Gln Gln Pro Phe His Val Gly Ile Phe Ser Leu Leu Thr Ile Gly  
 65 70 75 80  
 Ala Gly Arg Phe Gln Pro Ala Met Gln Pro Ala Asp Ser Xaa Pro Xaa  
 85 90 95

<210> 1055  
 <211> 391  
 <212> DNA  
 <213> Homo sapiens

<400> 1055  
 tacaatgtat catcaaccag aaatacaatg agaaccacct gccagtctcc caaatactat  
 60  
 ctgcagccac tcattttaact ctcttggtta gctccacgtg ggccgtctga actctcttag  
 120

aagaatcatc tctctgctca ggcaccggga gcaaggggca tctgtcgctc tgcagaacgg  
180  
aggggaccag gcctgatgaa caccatcctg ggcccagaaa cctgggaggg taaagagaac  
240  
tgccaggggt gaagtccaag gatgggaaaa aggcctccgg ggcagagtcc tgaaatgtca  
300  
gaagtacacc aaagaggaaa cagcatcacg ttattgctga ggcagggcct cattctgttg  
360  
ccaaggctgc agtgcagtgg tgacaccatg g  
391

<210> 1056  
<211> 83  
<212> PRT  
<213> Homo sapiens

<400> 1056  
Met Val Ser Pro Leu His Cys Ser Leu Gly Asn Arg Met Arg Pro Cys  
1 5 10 15  
Leu Ser Asn Asn Val Met Leu Phe Pro Leu Trp Cys Thr Ser Asp Ile  
20 25 30  
Ser Gly Leu Cys Pro Gly Gly Leu Phe Pro Ile Leu Gly Leu His Pro  
35 40 45  
Trp Gln Phe Ser Leu Pro Ser Gln Val Ser Gly Pro Arg Met Val Phe  
50 55 60  
Ile Arg Pro Gly Pro Leu Arg Ser Ala Glu Arg Gln Met Pro Leu Ala  
65 70 75 80  
Pro Gly Ala

<210> 1057  
<211> 341  
<212> DNA  
<213> Homo sapiens

<400> 1057  
gaattccctg cgcgtgtgac gccggtcgcc gagcaactcg gcgtgtcgct gacgctgcat  
60  
cccgatgatc cgccgcgtcc gctgttcggg ttgccgcgca ttgcgtccag cgccgaggac  
120  
tatcaggcgc tggttcgatgc ggtaccgtcc aaggcgaacg gcatctgcct gtgcacgggt  
180  
tcgctcggcg tgcgcgcgga gaacgatctg cctgaaatgg ccgaacgttt cgccccgcgt  
240  
atcgcccttg cgcattctgcg cgcgaccaag cgcgacgccg atggcctgtc gtttcatgaa  
300  
tccgaccatc tcgacggcga tgtcgacatg gtcgcgtgct c  
341

<210> 1058  
<211> 113  
<212> PRT  
<213> Homo sapiens